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S. Hrg. 103–291, Pt. 2

Senate Hearings

Before the Committee on Appropriations

Y 4. AP 6/2: S. HRG. 103-291/
PT. 2
Department of Transportation and Re...

Department of Transportation and Related Agencies Appropriations

Fiscal Year 1994

103^{d} CONGRESS, FIRST SESSION

H.R. 2490/2750

PART 2 **(Pages 811–1672)**

- **DEPARTMENT OF HEALTH AND HUMAN SERVICES**
- **DEPARTMENT OF TRANSPORTATION**
- **GENERAL ACCOUNTING OFFICE**
- **NONDEPARTMENTAL WITNESSES**
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S. HRG. 103–291, PT. 2

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1994

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

H.R. 2490/2750

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1994, AND FOR OTHER PURPOSES

PART 2 (Pages 811–1672)

Department of Health and Human Services
Department of Transportation
General Accounting Office
Nondepartmental witnesses
Office of Technology Assessment

Printed for the use of the Committee on Appropriations

U.S. GOVERNMENT PRINTING OFFICE
68–624 cc WASHINGTON : 1994

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-043665-6

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1994

WEDNESDAY, MAY 5, 1993

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:05 p.m., in room SD–192, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, D'Amato, and Domenici.

GENERAL ACCOUNTING OFFICE

STATEMENT OF ALLEN LI, ASSOCIATE DIRECTOR OF TRANSPORTATION ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

ACCOMPANIED BY:
ROBERT LEVIN, ASSISTANT DIRECTOR
ROBERT WURSTER, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION
RAY BUSH, ATLANTA REGIONAL OFFICE

OPENING REMARKS

Senator LAUTENBERG. We will call the Subcommittee on Transportation of the Appropriations Committee to order.

We will acknowledge the presence of my distinguished colleague from the other side of the Hudson River, Senator D'Amato, who I will call on in just a moment.

The FAA's capital investment plan, previously known as the national airspace plan, will cost the American taxpayer almost $34 billion through the year 2000 in order to upgrade all major air traffic control systems for the 21st century.

For fiscal 1994, the administration has requested an increase of approximately 7.4 percent in the FAA's F&E account, or the facilities and equipment account, out of which the CIP is funded for a total expenditure of $2.5 billion. That is eight times the amount provided a mere decade ago. No other account or activity funded by the Transportation Subcommittee has grown at this rate.

Yet, despite this increase, it is not clear what has been achieved. Although 46 of the CIP's 225 projects have been completed at a cost of about $1.7 billion, we do not know how much they contribute to additional capacity for the airspace system, increased safety to the traveling public, or improved air traffic controller productivity.

Now, given this record and the funding requests before the subcommittee, we must and we will pursue several key issues. First, we want to determine whether the FAA is on the right track in turning its procurement around and whether the funding we provide is well spent. We will take testimony from those who have been assessing the modernization effort on the adequacy of FAA's approach in dealing with its problems.

We also need to verify that the projects envisioned in the original NAS plan are still valid. If this proves untrue, we need to decipher whether the equipment conceived and designed several years ago has itself been overtaken by improvements in technology and scientific advancements that we have all seen over the last 10 years. Clearly, it does not make sense to modernize our system with equipment that is now obsolete or soon will be.

Our second purpose this afternoon is to explore with the users of the aviation system and other analysts the impact caused by delays in fielding the many new pieces of air traffic control equipment that comprise the modernized system. The impact of delays is felt in at least two ways.

First, benefits of a modernized system have been delayed, including lower fuel cost, flight time, system capacity, and controller productivity. This costs the users a lot of money. I have heard estimates that flight delays cost the airline industry about $5 billion a year. Now, I do not know whether that comprises all the adjunctive time that is lost, but if that does not, then we are certainly looking at a number that is substantially larger.

Second, stretching out the acquisition process for costly projects is an unnecessary drain on the aviation trust fund, which is the mechanism we use to fund the FAA's facilities and equipment account. We also want to know from system users whether decisions that the FAA is making on facility consolidation and new technology implementation will have a positive or a negative effect on them.

Finally, from today's hearing, we want to get a good sense of the status of air traffic control modernization. This includes the schedule delays and the cost growth for the key projects such as the $5.1 billion advance automation system, the causes for this delay and cost growth, and what the FAA and its contractors are doing to mitigate such problems.

Even if all the answers to these questions are satisfactory, we must ensure that funds going into this program are spent as prudently and as efficiently as possible.

To that end, we have to examine some practices related to the national airspace plan that are disturbing and which cannot go unchecked. According to the testimony that we are going to hear today, the FAA does not follow certain OMB procurement guidelines—I think the number is 109, for the process—nor does the agency follow its own requirements to prepare mission need statements for major capital purchases.

The lack of oversight on some of these major procurements is, truthfully, appalling and frightening. The misuse of sole-source contracts has to be stopped. We need to start recognizing and rewarding program managers for saving the taxpayers' money rather than letting them bask in the development of their own empires.

At the hearing last month, Secretary Peña said that a top-to-bottom review of the advanced automation system, or the AAS, was a good idea, and he had no objection to my suggestion that other major components of the national airspace plan be given the same scrutiny.

I welcome our witnesses here today. I hope that through their testimony and candor we may start down the path to correct the abuses and oversights of the past, and that this leads to sound economic decisions. If it were only one procedure, one division of responsibility that needed to be fixed, the task would be much simpler. But it is not. It is many things, and I suspect this includes attitudes. As difficult as the job may be, however, and as long as it may take, we are going to do it.

With that, before we call on our first witness, Mr. Li, I would ask Senator D'Amato whether he has an opening statement that he would like to make.

STATEMENT OF SENATOR D'AMATO

Senator D'AMATO. Mr. Chairman, let me ask that my full statement be included in the record as if read in its entirety.

Senator LAUTENBERG. Without objection.

Senator D'AMATO. Let me take this opportunity, Mr. Chairman, to congratulate you and to thank our professional staff that we have for calling this hearing, and I would like to associate myself with your remarks. They are incisive. They are very restrained, given the absolute nonsense, the almost childlike manner, the abuse of authority that the FAA has systematically engaged in.

It is absolutely shocking. There is no reason except that there has not been adequate supervision of this agency dating back to 1981 when we brought in one of the world's great screwups, Lynn Helms, who used the agency as if it were his own personal toy. And to have had vital programs mired in the bureaucratic empire building with the sole-sourcing based upon Lord knows what was inexcusable. It was inexcusable.

I think, Mr. Chairman, you have touched on this in a very precise and gentlemanly way, as opposed to my own observations. But I commend you for this hearing and look forward to working with you. And let me say that the General Accounting Office once again should be commended for their presentation. I think that they have been restrained. And were they called upon to be even more specific than time would permit or that the pages of the report as a practical matter would permit, there would be even more shocking revelations as it relates to the squandering of resources and time and the driving up of costs, with very little to show for it.

Lest my remarks be translated into something that I do not mean, I want to say that I believe that the agency employees, the large majority of them, have been dedicated and have labored, unnecessarily in some cases, as a result of this mismanagement of their resources. That the controllers, that the people on the line, that the inspectors, that the thousands of dedicated employees should not be misconstrued as it relates to their great contributions and the fact that their jobs have been made more difficult as a result of a bureaucratic maze and nightmare and misdirection that really comes from the top.

Mr. Chairman, I commend you for these hearings, and hope we can develop some additional guidelines—and I would say that there is no reason for these kinds of procurement practices that you have mentioned to continue. There just is not. And the old boy network had better stop, stop the business of contracting with their friends and buying programming systems that they do not know how to operate or use, and then modifying them after they get them and then putting them out again.

So, Mr. Chairman, it is with a good deal of frustration that I make these remarks, but I think they have to be made. And again, I look forward to working with you and your continued leadership in this area.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Senator D'Amato. As stated earlier, we have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Mr. Chairman, I join you in welcoming FAA Acting Administrator Joe Del Balzo as well as our other witnesses to today's hearing on procurement reform and the FAA capital program. Joe, I appreciate your hard work and efforts at the FAA.

As you know, the Administration's fiscal year 1994 budget request for FAA is $9.2 billion: This includes $2.5 billion for FAA's facilities and equipment (F&E) capital needs, an increase of $174 million (7.4 percent) over current levels. Operations would be funded at $4.6 billion, an increase of $38 million (less than 1 percent).

Our hearing will focus on FAA's F&E program. Major capital improvement projects to automate and update the FAA's air traffic control system include such programs as: the Advanced Automation System, the Voice Switching and Control System, Next Generation Weather Radar, Microwave Landing Systems, Global Positioning Satellites, and Long Range Radars.

The subcommittee is very concerned about long delays in the completion of the FAA's Capital Improvement Plan (CIP), formerly called the National Airspace Systems (NAS) Plan.

According to the General Accounting Office, out of 225 projects called for by the plan, FAA has completed only 46. All but 1 project dates back to the early 1980's when the NAS was first announced. Twelve major projects (over $50 million each) are delayed an average of 5 years and/or their costs have increased by a total of $233.5 million. For 10 of these projects, according to GAO, costs per unit have increased from 11 percent to 444 percent. This includes the FAA's largest project, the Advanced Automation System (AAS), which has now been delayed from 1994 to 2002. The cost of the AAS has grown from $2.5 billion in 1993 to $5.1 billion today.

I look forward to hearing what steps the FAA is taking to move its Capital Improvement Plan (CIP) forward and to cut costs.

Thank you, Mr. Chairman.

PROPOSED LEGISLATION

Senator LAUTENBERG. You are on the mark. What we see on behalf of the taxpayers of this country is intolerable. Unfortunately, we do not always spend our money as wisely as it appears that it might be done. Senator Roth and I think Senator Glenn on our side, are proposing legislation that has been several years in the making.

It says the legislation would judge agencies by how their own goals meet performance-based standards. It is outrageous to see us going along with very, very costly programs that, in the final analysis, may not be worth a hell of a lot. Therefore, it is with a great deal of interest that we both approach this hearing.

I have had a chance to review the testimony. One could say it borders on being spicy without having the kind of language that accompanies in there, spicy because what we see could be interpreted to be grossly mismanaged, even neglectful. Not in an accusation of deliberate misuse, but in the tactics. I come from the business community. There are few businesses that could continue to support programs like this without countervailing, thus counterbalancing the value.

PREPARED STATEMENT

My colleague, Senator Sasser, cannot be with us today. I will insert his opening statement for the record at this point.

[The statement follows:]

STATEMENT OF SENATOR SASSER

Good afternoon. The total proposed fiscal year 1994 Federal Aviation Administration Budget, at $9.2 billion, represents the second largest request within the Department of Transportation. A key element of that budget is the Facilities and Equipment account used to finance the modernization and improvements necessary for safe and efficient operation within the national airspace system. Today's hearing focuses on the Federal Aviation Administration's procurement record and specific areas of reform.

By all accounts, the United States aviation industry is in the midst of flux. Record financial losses, continued layoffs, and restructuring have all occurred as the FAA continues a decade long modernization effort. Just as the airlines have struggled to remain viable and competitive, the FAA's plan to modernize the air traffic control system has fallen far short of stated goals and expectations.

In the early 1980's, the FAA began a sweeping plan to upgrade and improve the nation's air traffic control and airway facilities. No one expected such an effort could occur cheaply or overnight. What was expected, however, were results. Ten years later, progress towards modernization raises more questions than it provides results.

Initially, the cost to modernize the air traffic control system was estimated at $12 billion. Today, the total estimated cost has risen to $33 billion. According to the General Accounting Office, just since last year, nine of the twelve major acquisition projects grew in cost. The total cost of last year's increases alone was approximately $233.5 million.

In addition, the overhaul of the nation's air traffic control system, most notably the Advanced Automation System (AAS), continues to be stalled by schedule delays. The General Accounting Office has estimated that, for major projects, the average length of delay between first and last site implementation is five years. Instead of moving forward and closer to scheduled implementation, delays have become almost routine. Clearly, that is moving in the wrong direction.

At the center of the cost increases and schedule slippages is the Advanced Automation System (AAS), the largest project in the FAA's modernization plan. The original cost of the AAS, to be completed in five segments, was $2.5 billion. Today, the estimated cost has more than doubled to $5.1 billion. Most of the problems with the AAS have been attributed to difficulties in developing the software for the Initial Sector Suite System (ISSS), the second segment of the AAS. Just this past March, the Federal Aviation Administration and International Business Machines, the prime contractor for ISSS, announced yet another delay in the development of the Initial Sector Suite System. With this latest fourteen month delay, the ISSS is now three years behind schedule.

The future of U.S. aviation rests squarely with the modernization effort. But more than that, the nation's economic health and strength are linked to infrastructure investments, including the FAA's Facilities and Equipment (F&E) expenditures. Investments in the infrastructure create jobs and enhance the nation's overall productivity. By the Department of Transportation's own estimates, F&E investments created 68,000 jobs and contributed more than $5 billion to the nation's economy in fiscal year 1992. A completely modernized and efficient air traffic control system can only maximize those economic benefits.

The Subcommittee is anxious to hear how the FAA plans to implement an aggressive, hands-on, and accountable strategy to move the modernization effort forward, containing costs and stopping the clock on any further delays. We are anxious to hear FAA's plan to safeguard the integrity of the modernization investment.

I look forward to hearing the testimony.

INTRODUCTION OF WITNESS

Senator LAUTENBERG. Mr. Li, we are very interested to hear your summary. As you know, you have been before this committee before and we ask you to summarize. Your full statement will be included in the record as if you read it. But I would ask you to keep testimony within as short a time as you can. We will set the clock here for 5 minutes. If you can meet the standard, fine. If you go over, do not go too far over.

STATEMENT OF ALLEN LI

Mr. LI. Thank you, Mr. Chairman. It is nice to be here again before you and Senator D'Amato. We welcome the opportunity to appear before you today to discuss acquisition management at FAA.

In 1981, FAA launched a major effort, now called the capital investment plan [CIP] to modernize its aging air traffic control system. Successful acquisition of new equipment is crucial to the timely implementation of the CIP.

Today, I will make three points. First, FAA has experienced substantial schedule delays and cost growth in modernizing the air traffic control system. For 12 major systems that we have followed over the years, the average delay is 5 years. For 10 of those same projects, cost growth, calculated on a per-unit basis, has ranged from 11 to over 400 percent.

The most vivid example of schedule delays and cost growth is the advanced automation system [AAS]. This is the biggest and most expensive project in the modernization program. Total costs for AAS have increased from $2.5 billion in 1983 to $5.1 billion today. Completion of AAS has been delayed from 1994 to the year 2002.

As you remarked, Mr. Chairman, delays in modernization projects have been significant. Long awaited safety and efficiency benefits have been pushed into the future. This includes cost savings projected for the airlines from advanced AAS software functions.

My second point: In our view, these problems have largely occurred because FAA, until recently, did not follow Federal Acquisition Guidance, spelled out in OMB's Circular A–109. Without going into details, A–109 outlines a five-phased approach to an acquisition in order to minimize cost and schedule problems.

Between these five phases, A–109 calls for four key decision points. At those decision points, agency heads have the opportunity to evaluate cost, schedule, performance, and risk. Needs for major projects are also reassessed. The purpose of the evaluations is to ensure that the acquisition does not advance to the next phase until management concerns are resolved.

My third point: FAA has taken some steps to improve its acquisition management, but opportunities exist to make further improvements. As an example of a positive step FAA has taken recently, the agency has revised guidance that puts FAA policy in line with

A–109. This guidance was signed 2 months ago. Among the changes is a requirement that operational testing be conducted and reviewed by an independent test group within FAA before production decisions are made.

Despite these positive changes, we believe FAA can further strengthen acquisition management. It is true that continued cost growth and scheduled delays are, to a large extent, a reflection of decisions made years ago. Improvements in FAA's acquisition management can primarily help to prevent cost and schedule problems with newer projects.

We see three specific improvements that FAA can make. No. 1, FAA needs to produce better mission need statements to support its new acquisitions. No. 2, FAA should ensure that alternatives that may be more cost effective are not unnecessarily foreclosed. No. 3, FAA can still make strides reporting progress against CIP goals.

You mentioned performance measures. I think this goes hand in hand with it. Last year we recommended that FAA incorporate measurable goals in the CIP to help guide funding decisions. Our review of a draft of the CIP indicates that FAA has developed measurable goals. Now that FAA has taken this important step, it would be helpful to decisionmakers if FAA reported its progress against these goals. FAA officials have indicated that they are starting to develop performance measures to track progress against its goals.

In summary, Mr. Chairman, to address the cost and schedule problems which have become commonplace in its modernization program, FAA has taken some positive steps. However, opportunities exist to further strengthen acquisition management. FAA's followthrough on its acquisition management reforms is critical to restoring confidence in the agency's ability to successfully manage the modernization program.

This concludes my statement. My team and I will answer any questions you may have at this time.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you, Mr. Li. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF ALLEN LI

Mr. Chairman and Members of the Subcommittee: We welcome the opportunity to appear before you today in order to discuss acquisition management in the Federal Aviation Administration (FAA), particularly in the context of modernization of the air traffic control (ATC) system. This statement summarizes our numerous reviews of FAA's modernization program done over the past several years (see app. III for a list of related reports).

As you know, increases in air traffic have strained the capacity of the nation's ATC system. Aircraft operations have increased by 40 percent over the last decade and FAA estimates that they will increase by another 30 percent over the next 10 years. This growing demand exacerbates FAA's already difficult task of relying on its aging ATC equipment to handle traffic safely and efficiently.

To deal with increased demand on the ATC system and aging equipment, FAA launched a major effort in 1981—now called the Capital Investment Plan (CIP)—to modernize the ATC system. Modernization involves the acquisition of new equipment such as sophisticated radars, computers, and communications networks. Successful acquisition of new equipment is crucial to the timely implementation of the

CIP. Poorly planned and managed acquisitions often result in systems that must be redesigned or further developed to meet agency needs, are deployed late, and require additional funding to cover cost overruns. Furthermore, expectations that new systems can reduce costs for airspace users—such as fuel savings for the airlines from more direct routes—cannot be met within established time frames.

In our testimony today, we will describe problems with the modernization projects' costs and schedules, the causes of those problems, and the steps needed to strengthen FAA's acquisition process. We will make three major points:

—First, FAA has experienced substantial schedule delays and cost growth in modernizing the ATC system. For 12 major systems, the average delay is 5 years from the milestones established in 1983. For 10 of those same projects, cost growth—calculated on a per unit basis—has ranged from 11 to 444 percent. The most vivid example of schedule delays and cost growth is the Advanced Automation System (AAS)—the biggest project in the CIP. The estimated costs for AAS have increased from $2.5 billion in 1983 to $5.1 billion today. Completion of AAS has been delayed from 1994 to 2002. The impacts of delays in modernization projects are significant: long awaited safety and efficiency benefits have been postponed, costly interim projects have been started to sustain existing equipment, and FAA's credibility as a capable manager of the modernization program has been eroded.

—Second, these schedule delays and cost increases occurred largely because FAA did not follow federal acquisition guidance aimed at reducing cost, schedule, and performance risks. For example, FAA did not prepare mission need statements that would have documented the need for key requirements such as the level of reliability for new systems—how much down time the system can have. In the case of the $1.4 billion Voice Switching and Control System (VSCS), without analyzing the needed level of system reliability, FAA established requirements that have been extremely costly and time-consuming to achieve.

—Third, FAA has taken some steps to address its cost and schedule problems. For example, in accordance with federal acquisition guidance, FAA now requires mission need statements that should document the inability of current equipment to fulfill agency needs and the consequences of not meeting these needs. The agency has also announced a series of initiatives to put a key segment of the AAS project on track. However, opportunities exist for FAA to strengthen its acquisition management. During our review of FAA's mission needs process, we found that the statements seldom used quantitative or qualitative evidence of problems with the ATC system to justify new investments. In the past year, we made several recommendations to FAA regarding the need to improve its acquisition management, and FAA has generally agreed with our recommendations. The agency now needs to follow through with its planned improvements.

SCHEDULE DELAYS AND COST INCREASES HAVE HINDERED THE MODERNIZATION PROGRAM

We have reported on the status of FAA's ATC modernization program over the past several years. In total, delays and cost increases since the beginning of the modernization program have been significant. Also, delays have resulted in deferred benefits and costly interim projects.

MAJOR PROJECTS HAVE ENCOUNTERED SCHEDULE DELAYS AND COST GROWTH

Over the years, we have tracked the progress of 12 major acquisition projects that are important in terms of their size and their potential contribution to improving the safety and efficiency of the ATC system. As we recently reported to this Subcommittee, the average schedule delay for these 12 projects has been 5 years from milestones published in FAA's 1983 modernization plan.[1] For example, the first-site implementation milestone for FAA's new Airport Surface Detection Equipment (ASDE–3) radar—which could prevent runway incursions—has been delayed by 6 years because of continuing software development problems. Another example is AAS. Significant delays have occurred in AAS's schedule and have grown more severe over the past few months. FAA recently announced that a key initial segment of AAS, in which controller work stations will be replaced at some major ATC facilities, has been delayed another 14 months because of problems in developing the system software. In 1983, FAA reported to the Congress that AAS would be completed by 1994. FAA's most recent estimate for AAS completion is now 2002. A third example is the Mode Select (Mode S) radar and communications system. Similar software development problems have been experienced with Mode S and, as a result, no system is yet operational 9 years after the production contract was signed. Appendix I lists key milestone dates associated with these 12 major acquisitions.

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[1] *Air Traffic Control: Status of FAA's Modernization Program* (GAO/RCED–93–121FS, Apr. 16, 1993).

Costs for the 12 major acquisitions we follow have also grown. Because system quantities can change over time, we have developed a cost index to compare 1983 and current Facilities and Equipment (F&E) cost estimates.[2] For 10 of the 12 projects, increases in per-unit costs have ranged from 11 to 444 percent. From a total project perspective, cost increases have also been significant. For example, AAS has doubled in cost from $2.5 billion in 1983 to $5.1 billion. The VSCS communications system that was designed to work with AAS has experienced even more serious cost growth. Estimated F&E costs for VSCS have increased from $259 million to $1.4 billion, or by well over 400 percent.

DELAYS HAVE DEFERRED BENEFITS AND LED TO COSTLY INTERIM PROJECTS

Pervasive delays in the modernization program have delayed benefits to systems users and thus have diminished the aviation community's confidence in FAA's ability to manage the modernization program. The overall goal of FAA's modernization program is to improve the safety and efficiency of the nation's ATC system. FAA currently estimates a total of $230 billion in benefits to aviation system users. However, schedule delays in modernization have deferred many of these benefits. For example, the potential safety benefits of ASDE–3 have been delayed 6 years. Potential fuel savings from user-preferred routes, available through the use of AAS advanced software functions, have been delayed until at least 1996.

Delays have also caused FAA to initiate costly interim projects to sustain the current ATC system. For example, delays in AAS have contributed to the need for over $700 million in interim projects, including the $435 million Interim Support Program. Also, in the fiscal year 1994 budget, FAA is requesting $10.8 million in F&E funds to initiate an interim replacement of the Display Channel Complex—a computer that is to be replaced by AAS.

COST AND SCHEDULE PROBLEMS HAVE OCCURRED LARGELY BECAUSE FAA DID NOT FOLLOW FEDERAL ACQUISITION GUIDANCE

In the past, we reported that problems with modernization projects occurred largely because FAA did not follow federal acquisition guidance in the form of Office of Management and Budget (OMB) Circular A–109. A–109 is the principal guidance for acquiring major systems in the federal government. It calls for following a disciplined, five-phased approach to acquisition in order to minimize problems, such as cost increases and schedule delays. Before moving from each phase to the next, A–109 calls for a key decision point at which time agency heads are to evaluate the cost, schedule, and performance of major projects. The purpose of the evaluations is to ensure that the acquisition does not advance to the next phase until management's concerns have been resolved. The A–109 acquisition model is depicted in Appendix II.

From the inception of the ATC modernization program until 1991, FAA did not follow the A–109 process. The agency believed that it could deliver and install new systems more quickly by combining A–109 phases. However, FAA was proven wrong in not following A–109 as shown by the delays that occurred in most of the major systems in the modernization plan.

The first and most important step in the A–109 process—key decision point #1—is the approval of a mission need statement. Agencies should document their inability to fulfill mission needs with current assets. At the outset of its modernization program, FAA did not prepare mission need statements for its major acquisitions. Instead, it used its modernization plan as a blanket mission need statement. As a result, FAA did an inadequate job both of analyzing problems with existing systems and of establishing requirements for the new systems. For example, for VSCS, FAA did not analyze the needed level of system reliability. VSCS costs have grown, in part to achieve a near-perfect 4 seconds of downtime per year. This far surpasses the 8 hours of downtime per year achieved with the current systems that VSCS will replace.

As the second step in the A–109 process—key decision point #2—agency heads approve acquisitions to proceed after alternative design concepts have been identified and explored. FAA has not always evaluated a wide range of alternatives. For example, with Mode S, FAA initially considered five alternatives, but its determination to combine surveillance and communications functions effectively foreclosed all but the Mode S alternative from consideration.

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[2] Facilities and Equipment is the FAA appropriation account which primarily funds the modernization program.

As the third step—key decision point #3—agencies should demonstrate that systems meet their operational requirements before proceeding into full-scale development. In the past, FAA was not always sure that requirements could be met before entering full-scale development. For example, with AAS, FAA contracted with International Business Machines in 1988 to develop and produce the Initial Sector Suite System (ISSS)—the segment of AAS which provides new work stations for air traffic controllers.[3] However, the operational requirements for ISSS have continued to change. An April 1992 review of AAS by the Volpe National Transportation Systems Center noted that FAA's lack of clarity and decisiveness in resolving requirements issues has contributed to the problems with ISSS development.[4] FAA's Executive Director for Systems Development and its Executive Director for Acquisition and Safety Oversight recently acknowledged that the agency still needs to improve its systems requirements process and said that the agency plans to focus on this area.

Before committing resources to full production—the final phase of A–109—agencies should ensure at key decision point #4 that the full-scale development and limited production phase is complete. During full-scale development and limited production, systems should be tested under operational conditions. Before 1991, FAA did not have an independent test function that could fairly assess system performance and often did not operationally test systems before making production decisions. Because FAA did not always operationally test systems before approving full production, it has requested and obligated funds before knowing whether the new systems would meet all of its requirements. For example, FAA has obligated most of the funds for the 33 ASDE–3 radars that it originally intended to purchase. However, controllers have not been able to use the radars because of persistent software problems. Had FAA completed a full-scale development and limited production phase, it is unlikely that it would have committed funds to production before these problems were resolved. As of last week, ASDE–3 was not operational at any airport. We believe that it is especially important for FAA to complete the development and testing of systems before committing to production when software development is involved. The protracted development of software for many of these systems has delayed their completion, as was demonstrated with ISSS. Until Software code is written and tested, it is difficult to have confidence that systems will work as designed. The steps laid out in the A–109 process should help to ensure that software risks are adequately minimized.

While following the risk mitigation steps of A–109 is important to successful acquisitions, sound oversight of contractors is also essential: FAA has not always adequately monitored the performance of the contractors it has hired to produce new modernization systems. For example, for AAS, FAA did not assign enough staff or implement adequate quantitative measures to assess its contractor's progress in software development. As the Volpe report pointed out, FAA's practice of measuring progress in terms of software builds—increments in which software is written and tested—did not provide an adequate measure of progress. Therefore, although FAA and its contractor thought they were making good progress, software code for the most difficult functions remained unwritten and untested.

DESPITE CHANGES, FAA NEEDS TO FURTHER STRENGTHEN ACQUISITION MANAGEMENT

FAA has made changes to help strengthen its acquisition management. For example, FAA acquisition guidance now requires that projects have mission need statements before they can be included in the agency's budget and that systems will be operationally tested before FAA commits resources to production. In addition, the agency recently implemented a series of management initiatives to enhance its oversight of ISSS development activities. However, opportunities exist in several areas to make further improvement.

FAA HAS MADE CHANGES TO FOLLOW FEDERAL ACQUISITION GUIDANCE

To reduce the risk of cost growth, schedule delays, and technical problems, FAA has initiated changes to improve its acquisition management. In 1990, FAA created the position of Executive Director for Acquisition to head an office responsible for overseeing acquisition policy and monitoring independent operational testing. In September 1990, the Executive Director reported that FAA did not have adequate policies and procedures to manage the acquisition of major systems and identified this area as a major internal control weakness.

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[3] The ISSS is one of four remaining segments of the AAS project. For a detailed discussion of AAS related issues see *Air Traffic Control: Uncertainties and Challenges Face FAA's Advanced Automation System* (GAO/T–RCED–93–30, Apr. 19, 1993).

[4] *An Assessment of the Status and Technical Risk of Federal Aviation Administration's Advanced Automation System Software Development* (IR–MA–1298–2), Volpe National Transportation Systems Center and Intermetrics, Inc., Apr. 1992.

In February 1991, FAA issued revised guidance on major acquisitions that put FAA policy in compliance with A–109. Among the changes incorporated in this guidance was a requirement that new projects have a mission need statement before being included in FAA's budget. The guidance also required that alternatives be identified and evaluated and that operational testing be conducted and reviewed by an independent test group within FAA before production decisions were made. FAA has recently issued a new acquisition policy that reinforces its commitment to follow the A–109 process. FAA's Acquisition Review Committee—which is composed of top level agency officials—is responsible for ensuring that projects comply with FAA's acquisition policies.

FAA has extensively updated its various acquisition orders and made other changes that FAA officials believe will improve the agency's acquisition process. For example, the status and risks of each major acquisition must be regularly reviewed by the Committee. Also, FAA now requires that program managers submit a risk management plan, including measures to reduce risk, that the Committee must approve before an acquisition can proceed to the next phase. Program managers must also develop acquisition program baselines for the most costly major acquisitions. These baseline documents are intended to promote stability and control costs by establishing quantified targets for key performance, cost, and schedule parameters that are critical to the success of the acquisition.

FAA has also issued a new acquisition policy order that encourages the purchase of nondevelopmental items (NDI) when appropriate. An NDI is any item previously developed and available in the commercial marketplace, including off-the-shelf technology. Until recently, FAA generally procured systems that were specially developed to meet its stringent requirements. However, since major systems have taken longer to build and install and have been more costly than planned because of development problems, FAA has decided to emphasize the need to consider off-the-shelf items. By relaxing some of its requirements, the agency believes that it can install new equipment more quickly and at a lower cost. For example, for high-capacity voice recorders, which record ATC voice communications, FAA was able to reduce its unit cost from $115,000 to $13,000 by buying an off-the-shelf item.

MANAGEMENT INITIATIVES TO ADDRESS ISSS PROBLEMS

In March of this year, FAA acknowledged that it had not been exercising sufficient, continuing top-level management focus on the AAS project, including providing adequate attention to requirements issues and taking too long to respond to technical issues. To address these problems, FAA instituted three management-related initiatives. First, the agency elevated the AAS project by naming a program director to oversee AAS who now reports directly to the Administrator. The program director is empowered to make decisions on issues affecting requirements, except where schedule or cost of the project will be affected by a requirements change. As a result, the program director is accountable for cost containment and keeping the project on schedule. The Acquisition Review Committee is responsible for reviewing the status of the AAS Project at least every 2 weeks, and more often if necessary. The Committee is also responsible for ruling on requirements changes that impact on ISSS cost or schedule.

Second, FAA is in the process of establishing separate program managers for each of the four remaining segments of the AAS project. The former deputy program manager for AAS has been selected as the ISSS program manager. Third, FAA established a dedicated ISSS team at the contractor's site. The team includes representatives from Air Traffic and Airway Facilities organizations within FAA, as well as a contracting officer. The team is fully empowered to resolve technical problems as they arise, eliminating the decision-making delays of the past where it took too long for the agency to come to grips with such problems.

In our opinion, these management initiatives are reasonable under present circumstances and should help to address ISSS problems. However, they will take time to work.

OPPORTUNITIES TO STRENGTHEN THE ACQUISITION PROCESS

Continued cost growth and schedule delays are, to a large extent, a reflection of decisions made years ago. Most of the projects whose progress we report on were begun in the early 1980s. Improvements in FAA's acquisition management can help to minimize problems with existing projects, as well as prevent cost and schedule problems with newer projects. These newer projects will consume an increasing portion of the F&E budget.

Specifically, FAA can improve its acquisition management by developing well-supported mission need statements; assessing alternatives for key projects, such as those involving precision landing systems; and developing performance measures to quantify progress toward CIP goals.

IMPROVED MISSION NEED STATEMENTS AND MISSION ANALYSIS WOULD PROVIDE STRONG FOUNDATION FOR FAA'S ACQUISITIONS

This past year, we looked at what, in our view, is the most important step in FAA's acquisition process: the development of a mission need statement. A good mission need statement will result in well-defined operational requirements that will guide the contractor and will allow FAA to test new systems against users' needs. Although a good mission need statement will not ensure a problem-free acquisition, poorly defined needs create a weak foundation for the remaining steps in FAA's acquisition process.

According to FAA's guidelines for mission need statements, all unsupported assertions of need are of no value and unsupported statements will be rejected. The Acquisition Review Committee reviews and approves these statements thereby allowing projects to proceed to the next phase of the A–109 process. To test FAA's implementation of these guidelines, we examined 25 of the 76 mission need statements that FAA had approved by August 1992 for funding in fiscal year 1994. We found that FAA's mission need statements were often not supported and therefore did not justify that a need existed for the projects.[5] The 25 mission need statements we examined listed 110 deficiencies or current problems with the ATC system. FAA contended that these deficiencies have adverse effects on FAA's operations, such as driving up operating costs, threatening air traffic safety, or limiting capacity. However, 68 (62 percent) of the deficiencies were not supported by either qualitative or quantitative evidence explaining what performance problem was to be fixed, such as the extent of maintenance problems with the current system or the extent to which a new investment could be expected to improve capacity and safety or to reduce operating costs. For example, one statement asserted that "catastrophic consequences" could result and maintenance costs would "escalate" if a new communication system was not acquired. However, the statement did not provide any supporting information.

According to A–109, mission analysis is a crucial beginning point in the acquisition management process and a precursor to the mission need statement. It should consist of first defining FAA's various mission areas and performance criteria and standards for each. Mission analysis then measures performance against the standards to identify current or projected shortfalls that affect FAA's ability to fulfill its overall mission of providing a safe and efficient aviation system. However, we found that the mission need statements we examined were often not based on analyses of existing ATC systems' performance. Such analyses would have measured how well these systems were performing, identified areas most in need of improvement, and helped set priorities for capital investments.

FAA has recently made some progress in improving its mission need statements by establishing a mission analysis team to review statements submitted for the fiscal year 1995 budget. The mission analysis team's purpose is to provide a bridge between descriptions of need written by FAA operations officials—such as those in FAA's air traffic organization—and more quantitative descriptions of performance appropriate for exploring alternative systems in the next acquisition phase. Also, FAA's new acquisition policy stresses the need for mission analysis to be performed on an ongoing basis. The Acquisition Review Committee will play the key role in encouraging mission analysis and in ensuring that mission need statements are well supported.

REASSESSING NEEDS AND IDENTIFYING ALTERNATIVES FOR EXISTING PROJECTS

The assessment of needs and alternatives was the subject of our recent report on FAA's plans to develop alternative precision landing systems, including the existing Instrument Landing System enhanced with aircraft-based computer technology and two emerging and potentially more capable systems—the Microwave Landing System (MLS) and a satellite-based landing system. As we reported in November 1992,

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[5] *Air Traffic Control: Justifications for Capital Investments Need Strengthening* (GAO/RCED–93–55, January 14, 1993).

FAA had not determined, runway by runway, which category of system would be needed and whether the replacement of each ILS with a higher capability system was justified.[6] We recommended that FAA provide full budgetary support for the development of all alternatives and prepare a new mission need statement for precision landing systems in general, before deciding on whether to replace existing ILSs. FAA's fiscal year 1994 budget request now provides adequate resources to develop alternative precision landing systems. The potential costs to FAA and system users—between $252 million and $336 million in MLS avionics costs for the commercial aviation fleet—make it essential that FAA thoroughly assess its needs and alternatives for precision landing systems, as we have recommended.

ESTABLISHING MODERNIZATION GOALS AND MEASURING FAA'S PROGRESS

Last year, we recommended that FAA incorporate measurable goals in the CIP to help guide funding decisions for the modernization program.[7] FAA has not yet published its 1992 CIP. However, our review of a draft of the CIP and the fiscal year 1994 F&E budget request indicates that FAA has developed measurable goals. For example, one goal is to increase airport and airspace capacity by 20 percent by 1999. Another is to reduce runway incursions by 80 percent by 2000.

Now that FAA is taking this important step, it would be helpful to decisionmakers in both the executive branch and the Congress if FAA were to report its progress against these goals. Up until now, FAA has reported its progress in terms of the number of CIP projects under contract and completed. Those could be indicators of progress, but they do not show how FAA is improving the safety and efficiency of the ATC system, which is the overall goal for the CIP and the F&E budget.

FAA has recently indicated that it is developing performance measures to track progress against these new CIP goals. Measuring progress against goals would help the Congress in making decisions on where to focus its F&E resources. In addition, it would help FAA to analyze its performance and detect deficiencies in existing systems. This exercise would improve mission need statements and provide better support for modernization projects.

In summary, to prevent a recurrence of cost and schedule problems with newer modernization projects, FAA has taken some positive steps such as requiring mission need statements. However, we believe that FAA can still make significant progress in improving its acquisition process. Given the importance of the modernization program in maintaining a safe and efficient ATC system, it is important that FAA follow through with its planned improvements in these areas.

Such follow-through will change the way FAA conducts acquisitions. FAA officials will have to reorient their thinking toward first analyzing current performance to identify and demonstrate deficiencies and the need for improved capabilities. Based on our examination of several recent mission need statements, this point cannot be overemphasized. The Acquisition Review Committee has the opportunity to emphasize its commitment to improve FAA's acquisition process by ensuring that sufficient attention is given to mission needs and to the thorough assessment of alternatives. The actions that FAA takes to strengthen its management of acquisitions will do a great deal to enhance its credibility in managing the modernization program.

Mr. Chairman, this concludes my statement. We will be happy to respond to any questions you might have at this time.

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[6] *Airspace System: Emerging Technologies May Offer Alternatives to the Instrument Landing System* (GAO/RCED–93–33, Nov. 13, 1992).

[7] *FAA Budget: Key Issues Need To Be Addressed* (GAO/T–RCED–92–51, Apr. 6, 1992).

APPENDIX I

CHANGES IN IMPLEMENTATION MILESTONES FOR 12 MAJOR FAA PROJECTS

	First-site implementation—				Last-site implementation—			
	Year of first-site implementation—			Years delayed	Year of last-site implementation—			Years delayed
	1983 NAS	1991 CIP	1992 CIP	1983 NAS–1992 CIP	1983 NAS	1991 CIP	1992 CIP	1983 NAS–1992 CIP
Advanced automation system	1990	1991	1991	1	1994	2001	2002	8
Air route surveillance radar	1985	1993	1994	9	1995	1996	1996	1
Airport surface detection equipment radar	1987	1992	1993	6	1990	1994	1996	6
Airport surveillance radar	1985	1989	1989	4	1992	1993	1996	4
Automated weather observing system	1986	1989	1989	3	1990	1997	1997	7
Central weather processor	1990	1991	1991	1	1991	1998	(1)	(1)
Flight service automation system	1984	1991	1991	7	1989	1995	1995	6
Microwave landing system	1985	1997	1997	12	1999	2008	2008	9
Mode S	1986	1993	1993	7	1993	1996	1996	3
Radar microwave link replacement and expansion	1985	1986	1986	1	1989	1994	(1)	(1)
Terminal Doppler weather radar	(2)	1993	1993	(2)	(2)	1996	1996	(2)
Voice switching and control system	1989	1995	1995	6	1992	1997	1997	5
Average years of delay	....	....	....	5	....	....	....	5

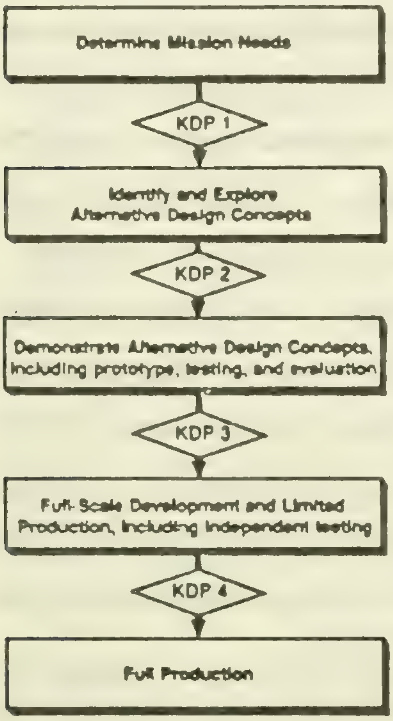
[1] Because portions of the Central Weather Processor (CWP) and the Radar Microwave Link (RML) Replacement and Expansion are being reevaluated, we cannot determine the last-site implementation dates.

[2] Terminal Doppler Weather Radar project was not included in the 1983 NAS Plan.

Source: Implementation dates from FAA's 1983 NAS Plan, 1991 CIP, and unpublished 1992 CIP.

APPENDIX II

A-109 Major System Acquisition Process


Determine Mission Needs
KDP 1
Identify and Explore Alternative Design Concepts
KDP 2
Demonstrate Alternative Design Concepts, Including prototype, testing, and evaluation
KDP 3
Full-Scale Development and Limited Production, Including independent testing
KDP 4
Full Production

Determine Mission Needs

Key Decision Point 1
Approval of the mission needs statement starts the major system acquisition process by granting authority to explore alternative system design concepts

Identify and Explore Alternative Design Concepts

Key Decision Point 2
Advancement to a competitive test/demonstration phase may be approved when the agency's mission need and program objectives are reaffirmed and when alternative system design concepts are selected.

Demonstrate Alternative Design Concepts

Key Decision Point 3
Following reconfirmation of the mission need and program objectives and verification that the chosen system design concept(s) is sound and risks are acceptable, the agency head may authorize the next phase

Full-Scale Development and Limited Production

Key Decision Point 4
Following satisfactory test results and reconfirmation of mission need and program objectives the agency head may authorize full production

Full Production

APPENDIX III

RELATED GAO PRODUCTS

FAA Budget: Important Challenges Affecting Aviation Safety, Capacity, and Efficiency (GAO/T–RCED–93–33. Apr. 26, 1993).

Air Traffic Control: Uncertainties and Challenges Face FAA's Advanced Automation System (GAO/T–RCED–93–30, Apr. 19, 1993).

Air Traffic Control: Status of FAA's Modernization Program (GAO/RCED–93–121FS, Apr. 16, 1993).

State of the Airline Industry: Strategies for Addressing Financial and Competition Problems (GAO/T–RCED–93–21, Mar. 10, 1993).

Air Traffic Control: Advanced Automation System Problems Need to Be Addressed (GAO/T–RCED–93–15, Mar. 10, 1993).

Air Traffic Control: Justifications for Capital Investments Need Strengthening (GAO/RCED–93–55, Jan. 14, 1993).

Transportation Issues (GAO Transition Series) (GAO/OCG–93–14TR, Dec. 1992).

Airspace System: Emerging Technologies May Offer Alternatives to the Instrument Landing System (GAO/RCED–93–33, Nov. 13, 1992).

Air Traffic Control: Advanced Automation System Still Vulnerable to Cost and Schedule Problems (GAO/RCED–92–264, Sept. 18, 1992).

FAA Budget: Key Issues Need to Be Addressed (GAO/T–RCED–92–51, Apr. 6, 1992).

Air Traffic Control: Status of FAA's Modernization Program (GAO/RCED–92–136BR, Apr. 3, 1992).

Air Traffic Control: Challenges Facing FAA's Modernization Program (GAO/T–RCED–92–34, Mar. 3, 1992).

Air Traffic Control: FAA Can Better Forecast and Prevent Equipment Failures (GAO/RCED–91–179, Aug. 2, 1991).

Aviation Acquisition: Further Changes Needed in FAA's Management and Budgeting Practices (GAO/RCED–91–159, July 29, 1991).

FAA Budget: Key Issues in Facilities & Equipment and Operations Accounts Need Resolution (GAO/T–RCED–91–58, June 5, 1991).

Major Acquisitions: Top Management Attention Needed to Improve DOT's Acquisition Process (GAO/T–RCED–91–45, Apr. 24, 1991).

Air Traffic Control: Status of FAA's Modernization Effort (GAO/RCED–91–132FS, Apr. 15, 1991).

Air Traffic Control: The Interim Support Plan Does Not Meet FAA's Needs (GAO/RCED–90–213, Sept. 11, 1990).

Air Traffic Control: Continuing Delays Anticipated for the Advanced Automation System (GAO/IMTEC–90–63, July 18, 1990).

Air Traffic Control: Ineffective Management Plagues $1.7 Billion Radar Program (GAO/IMTEC–90–37, May 31, 1990).

FAA Encountering Problems in Acquiring Major Automated Systems (GAO/T–IMTEC–90–6, Apr. 26, 1990).

Issues Related to FAA's Fiscal Year 1991 Budget Request (GAO/T–RCED–90–66, Apr. 18, 1990).

Air Traffic Control: Status of FAA's Efforts to Modernize the System (GAO/RCED–90–146FS, Apr. 17, 1990).

Issues Related to FAA's Modernization of the Air Traffic Control System (GAO/T–RCED–90–32, Feb. 27, 1990).

Aviation Weather: FAA Needs to Resolve Questions Involving the Use of New Radars (GAO/IMTEC–90–17, Oct. 2, 1989).

Air Traffic Control: FAA Needs to Implement Effective Testing Program (GAO/IMTEC–89–62, Sept. 22, 1989).

Air Traffic Control: Continued Improvements Needed in FAA's Management of the NAS Plan (GAO/RCED–89–7, Nov. 10, 1988).

Microwave Landing Systems: Additional Systems Should Not Be Procured Unless Benefits Proven (GAO/RCED–88–118, May 16, 1988).

Aviation Acquisition: Improved Process Needs to Be Followed (GAO/RCED–87–8, Mar. 26, 1987).

[CLERK'S NOTE.—Due to its size, the GAO document "Status of FAA's Modernization Program" does not appear in the hearing but is available for review in the subcommittee files.]

ADVANCED AUTOMATION SYSTEM

Senator LAUTENBERG. Thank you for your statement. It gives us a number of issues to think about. I had the benefit of reviewing the statement earlier, and it is apparent that you have been studying the reporting on AAS for many years. Therefore, I would like to get a perspective on some of the issues that you raise.

You no doubt have been apprised of FAA's action to turn over a new leaf in procurement process as a whole, and in particular on the AAS project. On that basis, how effective is the new approach going to be in managing AAS? Have you had a chance to examine it? You did say in your statement that there were even further changes above those which you have already seen, and if it is repetitive I am going to ask you to do it.

How effective do you think their approach to managing AAS is? Will the changes that they have proposed and have in place ensure that AAS does not experience further oversight or contract management problems? Would you have them do more, or something else?

Mr. LI. Mr. Chairman, I guess I could answer that from two perspectives. To our understanding, FAA has taken some management initiatives. And what those changes incorporate are management controls, where they have elevated the importance of the program in terms of oversight by the Administrator. The Administrator now, every 2 weeks, reviews the status of the AAS. That is a significant change.

They have also, for the individual segments in AAS, assigned a program manager for those particular segments. That is a positive step. From a contractor oversight standpoint, they have been working with IBM. My team and I have gone to IBM and talked to Mr. Ebker, who is the IBM program manager now. They have made some changes there—some drastic changes.

IBM has removed certain individuals from key positions and replaced them. While we believe that the changes they have made are reasonable under current circumstances, I believe they will need some time to implement those changes.

Senator LAUTENBERG. So, therefore, while you agree with some of the changes made inside FAA, you do in your comments call for additional things to be done. You made recommendations a year ago.

Mr. LI. Yes, I do.

Senator LAUTENBERG. Do you see any evidence that the recommendations you made then had been put in place? Do you think that is responsible for the development of the program that has this biweekly review by the administrator? What happened in this?

Mr. LI. In terms of the AAS program, my belief is that there is enough blame to go around. IBM is to blame and FAA is to blame, and they both admit to that. As for the changes that they have announced, I can say that they are reasonable. My crystal ball does not tell me whether or not that 14-month delay that they are indicating now is going to be the end all.

I recall, Mr. Chairman, that a few years ago, when IBM announced a 19-month delay, it appeared that they were saying things would be better. So I am a little bit skeptical about saying that this is all it is going to be. However, I am encouraged by the fact that they are taking some positive steps in regard to oversight.

SYSTEMS ENGINEERING AND INTEGRATION CONTRACTORS

Senator LAUTENBERG. We paid nearly $1 billion to a contractor to perform systems engineering and integration duties. How would you describe that? Should any of those duties enable the contractor to foresee that the AAS system was getting into big trouble?

Mr. LI. I would like Mr. Levin to answer that question.

Mr. LEVIN. Well, certainly earlier in the contract, back in 1988 through 1990, when Martin Marietta was covering the progress of modernization, they saw some early signs that the AAS schedule was going to be very, very tough to meet. And they indicated those concerns to FAA management.

Interestingly, though, after, I guess it was maybe 3 years ago, the oversight of the AAS contract was turned over to TRW. And Martin Marietta basically pulled out of that role, and then it became TRW's job.

Do you want to add to that, Bob?

Mr. WURSTER. I would say Martin Marietta, along with some other contractors, put together cost schedule status reports on the IBM contract, and even as far as a year ago, those showed that there was 6 to 8 months slippage in ISSS. Now, the FAA program people at that time said, well, we have slack in the schedule to make it up. Obviously, that was not true. So I think there were some warning signs that there were potential slippages.

FACILITY CONSOLIDATION

Senator LAUTENBERG. It is regrettable because these are outstanding contractors, and should have been able to deal with this.

Now, FAA currently seems to be leaning toward a strategy of limited facility consolidation, rather than what it initially envisioned in the mideighties when it first began to seriously consider consolidating its ATC facilities. On the basis of your work on the consolidation issue, what do you say about the direction that FAA is heading in now?

Mr. LI. Mr. Chairman, I think FAA has settled on the limited consolidation strategy. I am glad that they finally made a decision. This has been a decision that we have been waiting for, for a long, long time. The other point that I would like to make is that the decision did surprise me in one sense.

When they first came out with the NAS Plan, they indicated that full consolidation was really a cornerstone. They wanted to be able to have efficiencies of scale. As you recall, Mr. Chairman, we just had the controller strike at that point in time. They were worried that they would not have enough controllers. So, as a result, they wanted to have consolidated facilities.

Furthermore, they wanted to be able to affect the number of maintenance people that they would have. With fewer facilities, they would not need as many people. So it is surprising that they have gone in this new direction.

Mr. LEVIN. I would like to add one thing, Mr. Chairman.

Senator LAUTENBERG. Please.

Mr. LEVIN. There are some positive aspects to the fact that you are not going to consolidate—No. 1 being that you do not have to move up to 6,000 people from their homes and neighborhoods to some strange place. And that is a positive.

And also, FAA had concerns about a backup capability not being there in case one of the big consolidated facilities went down. So that made sense from an operational sense, that they not consolidate. But there still are so many questions about what the impact will be of this consolidation, in terms of what happens to the AAS contract, and what happens to the voice switching and control system contract now that you are not going to bring all the terminals into the en route centers.

MISSION NEED STATEMENTS

Senator LAUTENBERG. Well, these are major decisions, in my view, often made in a vacuum. First, making the decision and then saying, hell, this is not really working the way we thought it was going to do.

Again, I come out of the computer industry. Although I was not a technician, I knew something about how we managed complicated programs. They are always very tough to bring in on time and to bring in on budget. Yet, there is a certain level of tolerance that you can accept. But when you talk of major policy decisions, operating decisions, strategic decisions, and not really have an objective that you expect to reach, that seems extremely amateur. Maybe it is lack of experience. But it would be pitiful to ask the American taxpayer to pay billions of dollars for a learning experience.

In your testimony today, you issued a report on the FAA's process of justifying its capital investments. You said that many missions needed statements. FAA's basis for investment do not support the need, necessarily, for the investment.

What portion of FAA's CIP would you say this conclusion applies to?

Mr. LI. That is so, Mr. Chairman.

Ray Bush is here today, and he led our team that provided that report.

Ray, can you answer that.

Mr. BUSH. In terms of 25 new projects, Mr. Chairman, that we looked at, it was in the neighborhood of $5 billion. Many of those were not supported. Some were. But it is close to that figure. We did not make a complete total of the ones that were definitely not or were supported. But it is in the neighborhood of $5 billion for all 25 projects.

Senator LAUTENBERG. After further reviewing the report on FAA's use of mission need statements to validate its need for new and complex systems for modernizing air traffic control, I am astounded, to say the least, at FAA's almost casual approach to justifying expensive equipment purchases.

Your report says that because of poorly defined needs, and I quote, FAA may waste scarce resources in developing systems that are not the most appropriate and cost-effective solutions to the ATC problems.

Can you give us some perspective on this issue? How serious do you think that it has been as a result of that? And are there, as you imply, major systems under development that perhaps should not be there?

Mr. LI. I would say, Mr. Chairman, that 1 year ago, if you had asked me that question, I would say it is very, very serious. At that point in time, the agency did not truly believe that it needed to overhaul the way that it was justifying and defining what it needed.

At the point in time in which we did do that analysis, it was so. We found that 25 of them had many deficiencies. As a matter of fact, one of the systems currently in the budget was one of those—I believe it was the enhanced terminal voice communications switch that was involved in one of those cases.

However, I would also say that with the implementation of the new guidelines, FAA has recognized this. As a matter of fact, Mr. Chairman, last night I received a reply to that particular report that you reference. And they have concurred with both of our recommendations.

PERFORMANCE MEASURES

Senator LAUTENBERG. Where are we in terms of the systems justification activities for the future, in terms of implementation as it relates to, let us say, all the work in the CIP plan underway at this moment? Would you recommend putting any faith in the utility of the billions of dollars that we have already provided to FAA to procure what? Are we at a point where we are scratching our heads and going back and saying, hey, what is this all about?

Mr. LI. Bob, can you answer that?

Mr. LEVIN. You had asked the question: What did we get for all the money we have spent? And I think one of the main purposes of this national performance review and the performance measurement bill that is before the Congress is to try to get a sense of what is being accomplished with the investments that are being made.

FAA has always said, trust us, we know what we are doing. Congress, give us the money and we will take care of it. Do not worry about it.

I think the days of trust us are gone.

They need to show progress and show impact—show that they are helping the airlines, that they are increasing controller productivity. We recommend very quantitative measurements so people can understand how much progress they are making.

ADVANCED AUTOMATION SYSTEM FISCAL YEAR 1994 BUDGET

Senator LAUTENBERG. I am going to call on Senator D'Amato in just a minute.

FAA's budget request includes $454 million for AAS in 1994. What is that money going to buy us?

Mr. LI. Mr. Chairman, we have seen the top level numbers of that breakout of the $455 million. We still have a lot of questions related to why some of the individual components are still needed, in light of the consolidation decision recently made. Of that $450 million, about $150 million is for the common consoles. Those are the work stations, the radar scopes that they are going to replace. There is also a lot of money in there related to how they are going to go about redesigning the rest of the system.

As I indicated in my statement, FAA is no longer going to be consolidating as it planned. They are going to need a much smaller computer than they originally wanted.

I have some question as to whether, in fiscal year 1994, they will have made the decision to tell IBM this is how we will proceed. I think there are some basic questions there.

Bob Wurster, do you have anything else?

Mr. WURSTER. Well, besides the money that is on the contract as part of the $450 million, there is other money, such as funds for field implementation, building modernization, and training. We are going to be taking a hard look at that over the next few weeks because of the slips in ISSS. Quick analysis indicates that you at least have to think about whether you need all of that money to install the systems if they are 14 months behind schedule.

Senator LAUTENBERG. How long are you waiting for answers to some of these questions? Has it been a while or were these recently asked?

Mr. LI. We asked some questions in the past 2 weeks, I would say, since we received the numbers.

Mr. WURSTER. Yes.

Senator LAUTENBERG. Up to that point, have your questions been responded to in a fairly good turnaround time?

Mr. LI. I believe that some of the information we had wished to receive has not yet been provided to us.

Senator LAUTENBERG. Thank you.

Senator D'Amato.

OMB CIRCULAR A–109

Senator D'AMATO. Well, Mr. Chairman, if I might just pursue your line, because I think that is exactly the key question here. Of the $450-plus million, it would appear that a significant portion of that money may not have to be spent—certainly not in this year. I am wondering if you might not review in the next few days or week, with the cooperation—and I am certain that the FAA will cooperate and get you the justification for this figure—just how much of that $453 million it would appear would not be necessary.

Because, heretofore, we have had and given a blank check—and this committee has and I have. Because whenever anybody says safety, you know, we do not want to be behind the eight ball. We want to say, well, the safety and the operation of these systems is such, and so we have basically given a blank check.

Now, let me also, for the record, say that I think that our people who are still there, our Acting Administrator, Mr. Chairman, and I know from both of our staffs' perspectives, has done an outstanding job during a very, very difficult period of time. I have ascertained from staff and from the GAO that they have felt that Mr. Del Balzo has gone out of his way to be cooperative.

Of course, it was unfair—it was not on his reign, he being only a temporary one, but it goes back to 1981 and on through. We are not looking to lay this to the people who are held over. The system is in desperate need of reshaping. I would like to go back to the recommendations that you made as it relates to the acquisition procedures, A–109, those which the agency has agreed to, and those which they have not, which you feel are indispensable, and move to adopt.

Can you identify some that they have not moved to implement and why it is important that they do so?

Mr. LI. If we are referring to the A–109 process, I believe, Senator D'Amato, that in reading their acquisition policy document—we received it just very recently—I believe that they have gone in the right direction. They have identified procedures in there that I find refreshing, in terms of some stop-and-go decision points that have not been provided before to FAA program managers.

I think what is important, Senator D'Amato, is that they follow through with that particular guidance. It is very easy to put out guidance. It is another issue to change the FAA culture, which has not been accustomed to this sort of discipline.

Before I forget, Senator, I have heard what you have said about getting together with FAA, and we will certainly do so. I will make a phone call to the administrator, and we will get the information relative to the cost of AAS.

Mr. BUSH. Senator, if I might give you one example of implementation that is still in process but is vital to this effort, it is that they are developing a mission needs analysis process that is implicit in what they have said in adopting A–109, but needs to be made very explicit and needs to permeate throughout the agency.

It certainly implies a cultural change, as Mr. Li has said.

Senator D'AMATO. Well, the Acting Administrator is here. He has done a good job. I think he is listening. Right? You got the message? Before you get up there, right?

Mr. DEL BALZO. Yes, sir.

Senator D'AMATO. Let me say, in terms of that mission statement, I noticed that Mr. Li touched on the second point of it, alternatives should not be precluded. You did not use the word precluded. I used it. Up until now, they did not allow alternatives. They would cut your head off if you come in with an alternative. And that is a fact. I have gotten that from employees. You know, stupidity should not be challenged. Because, you know, if I challenge it, I get in trouble.

How do we build it in so that they just do not write this down on a piece of paper? You know, Joe, that is going to be your job. In the interim, you have an opportunity as the Acting Administrator to make some incredible turnarounds here. And we do have these cultural things. You all work hard and you say, well, we know what is best, et cetera. But sometimes maybe you do not.

And you start working with a big company and you say, oh, they are doing a good job. Well, maybe they are not. And maybe there is somebody who can do a better job, and you should not be precluding them. So alternatives should not be precluded. And I think that is important.

Mr. Chairman, what we are hearing here is that under the new administration and the Acting Administrator—and it is a tough job for an Acting Administrator to make the decisions in this important area, but I think he has our confidence to continue in the right way of making reforms that are necessary—but it seems to me that we are going to have to get more than just a statement on a piece of paper. We will have to get them moving forward in implementing these things.

SYSTEMS ENGINEERING AND INTEGRATION CONTRACTORS

Let me ask you this. At one point, Martin Marietta—and I remember when they were here, and, Mr. Chairman, you go back to those days when they were the people riding shotgun over this—is that what you call them?

Mr. LI. They were FAA's partner at the beginning of the NAS plan, that is correct.

Senator D'AMATO. What happened?

Mr. LI. I think the role of the SEIC, the systems integrator, that was Martin Marietta's name, has changed over the years. To be fair, in 1981, I would say that FAA was not versed in big acquisitions. They needed help. That was something that the White House Science Council pointed out. And they had recommended that FAA get a prime contractor. Instead, what FAA did, Senator D'Amato, is they got a hybrid solution, the systems integrator.

Early on, what Martin Marietta did was to help FAA build the NAS plan and modernization. It has been 10 years now. As a matter of fact, Martin Marietta is in their 10th year of their contract. FAA has changed, because a lot of expertise has now come into the agency. Martin Marietta has transferred to FAA many of the tools that they had developed. And that is the reason why FAA feels they no longer need somebody such as a Martin Marietta in that capacity.

Senator D'AMATO. What do you think?

Mr. LI. I think that that is so. The expertise FAA now has is substantially greater than what it had in 1981. However, I am concerned about the fact that we are now replacing Martin Marietta with six individual support contractors.

It concerns me that there is no longer one body that can help them tie this all together. That was the justification for Martin Marietta early on. FAA tells me that they will be doing that now.

Senator D'AMATO. Who is going to do it, FAA?

Mr. LI. Yes, sir.

Senator LAUTENBERG. Do you feel good?

Senator D'AMATO. No; I do not. The chairman asked me if I feel good. I am worried. I am absolutely concerned when basic formula for assessing needs and building a program of this magnitude and this size is left internally, and they are going to manage six people who are six other independent contractors who are going to report to them. I do not think they have the expertise for this. They may have improved very substantially, but what are we going to be doing here—calling you in 2 years from now, and 3 years from now, and 4 years from now when we see a program whose cost has escalated?

I have to tell you I am not convinced that this is the best way to manage a multibillion-dollar acquisition program and a program where you are still working to try to come up and develop all of the requirements. And I do not even think you have met that—not that you have, but they have not. I am very much concerned. I think there is a lot lacking. And I do not think that this is the way to do it.

I would like to have an opportunity at some future date to confer with the chairman on another point. I do not know if he is satisfied with it, but I will tell you, it does not leave me with an easy feeling. And we are talking about a program that goes into well over $32 billion. No.

I do not think the in-house people and the operation of in-house has and does justify the confidence of this Senator, and I do not think it would justify the confidence of the Congress to say that we should let them continue. That somehow now they have—you are giving basic methodology for procurement that has not been followed.

If you were me, how would you feel? Are you really satisfied that this is the way to go?

Mr. LI. Senator, I feel that because I have this historical perspective of knowing where they were 10 years ago——

Senator D'AMATO. They are better now than they were 10 years ago.

Mr. LI. Certainly. Absolutely.

Senator D'AMATO. And do you not think that maybe there should be one systems' analyst here to review all of this and to work, let us say, with you and the Congress to provide the kind of expertise and oversight necessary? Where is the oversight? Where do we get it? Where does the capability come in? Are we going to have to call six independent contractors and get their perspective?

Mr. LI. The contractors that are replacing Martin Marietta are actually now doing something more detailed than what Martin used to do. Martin was at a much higher level as far as helping them build and make sure that there were no disconnects between individual systems. Because the NAS plan has now evolved after 10 years, there is a belief that that function is no longer needed.

However, Senator, I do share your concern that there is not one single body that is responsible for helping them integrate in total. And I think that might be a worthwhile question to pose to the Administrator.

Senator D'AMATO. Well, I would hope that we could approach them, Mr. Chairman, in terms of having somebody who would have the overall authority of making this assessment and sharing it both with the FAA and with the Congress so that we do have that reservoir of knowledge, et cetera, in a totally impartial manner.

It may be kind of lord of the manor, but it seems to me when you have a multibillion-dollar contract and it is going to be over this next dozen years, that that would be a very prudent investment, to attempt to bring in that kind of necessary oversight. I thank the chairman for his indulgence.

Mr. Chairman, I want to commend you for the hearing, because, you know, we talk about holding costs down and here is an example where I think that what we do today can be reflected in seeing to it that we have the best system, and have learned by our past mistakes.

I am not excoriating the people at the helm today. I go back to Lynn Helms & Co., and that is why I did that. But I would hope that we can benefit by this. I really think we need some additional help in oversight, and that oversight could be invaluable, to whoever an overall coordinator might be, in terms of working with the GAO and giving you additional insights as to what is taking place.

I thank the chairman, and I want to thank our panelists.

Senator LAUTENBERG. Senator D'Amato, I think what I hear you saying is that you have examined the record of the doctor who has performed a dozen cases of surgery in which there were eight or nine fatalities. Now, how would you feel about going into the operating room with this guy? I think you would be nervous, and I would not blame you if maybe you look for another doctor with a better record.

And I think, without getting too whimsical, the fact of the matter is that experience thus far has not been very good. With the AAS system, 8 years behind, $3 billion at this point, one does not feel particularly confident about the ability within the organization or the structure that would ensure that we reach our targets. And when you take systems coordination in complex communications or information networks, it is a very difficult job.

There are very few cases that I have heard of where jobs of a fairly complex nature, of long duration, in terms of assembling the information, in terms of target dates, do not have some slippage. But what we have seen borders on the outrageous, in terms of slippage.

AIR TRAFFIC CONTROL MODERNIZATION

Let me just ask you one more question in connection with that. We talk about the status of the FAA's modernization program, and in that report it discusses the procurement history of the 12 major systems that GAO tracks. However, in reading the report this year, I was struck by the need for information on what the future holds for these 12 systems, especially with budget implications.

In some cases, the information is presented in the narrative form, and I wonder whether it is possible to present them in a little more reader friendly fashion. Can GAO supplement its status report with some fairly concise benchmark develop or chart or table projecting outlooks, et cetera, that would help us track it on a more regular basis, perhaps every 3 months or so we could get some idea of where it was?

Mr. LI. Mr. Chairman, we would be glad to work with the subcommittee to come up with a format that is more easily used by you. Certainly, sir.

Senator LAUTENBERG. With that, I thank you, Mr. Li, as usual, for your diligent work, and your colleagues as well. And we will now hear from the next panelists.

Thank you.

That will be Mr. Jack Ryan, who is vice president for air traffic management of the ATA; and Mr. Phil Boyer, president of the Aircraft Owners and Pilots Association.

[Pause.]

Senator LAUTENBERG. If you gentlemen would just pause for one second. Senator D'Amato indicated that he has other hearings to attend, and he had a question for Mr. Del Balzo.

Gentlemen, would you mind.

Mr. Del Balzo, would you respond to Senator D'Amato's single question?

And I would ask our other witnesses to please wait.

ELIMINATION OF THE PAY DEMONSTRATION PROJECT

Senator D'AMATO. First of all, thank you very much, Mr. Chairman. And I ask the indulgence of the other panelists. This is going to be very brief. And it is a concern that I have and that the chairman has expressed. Because we have worked together to do something that I think has strengthened the operation of the FAA and has seen to it that the most senior and talented people were rewarded and adequately compensated for working in the toughest, hardest spots in the world, and that is in the New York/New Jersey/Connecticut airspace, by seeing to it that there was a differential for the high-cost areas.

I note that there has been, in an effort to save about $20 million, the elimination, 1 year earlier, of the controller pay demonstration program, which I believe, Mr. Chairman, has had a remarkable impact.

Now, let me say right now, I am adamantly opposed to it. I will work against phasing that out. I think it is absolutely penny wise and pound foolish. I have to tell you, I am angry about it. It is wrong. It is counterproductive. And in light of the billions of dollars of increases that we have seen, the starts, the stops, et cetera, in acquisition, how do we dare come forward and say to people who are working like crazy under terrible situations that we are just going to take this away?

Now, it is wrong. And I do not mean to deprecate the air controllers in any other area. But let me tell you, when you work under these situations, and we have seen the situations, we have given for the first time a boost in the morale—and we are talking safety here—that is what we are talking about—we have given a boost in the morale to these people, and now, to take it away from them, I think it is wrong.

And I am going to ask you how it is that you come forward with this, and will you reexamine this in the light of what I believe is this committee's very strong feeling—and I want to tell you something, I am up there flying plenty. I want those people guiding those planes into New York and to La Guardia and into New Jersey and all of the other areas that are covered—I want them to feel that they are being recognized for their expertise and for their working under difficult situations.

And I would compare that—you show me—in Ames, IA, why should a guy in Ames, IA, be paid the same? It is a doggone, stupid thing. Now, tell me why you did this.

Mr. Del Balzo. Senator, you know me well enough to know that if you ask us to go back and take another look, we will do that. So I commit to doing that.

Senator D'Amato. Very good.

Mr. Del Balzo. This is a decision that I think you also know did not come easy for us. This was not something that we are proud of doing. It is not something that we are happy about.

Senator D'Amato. Well, find $20 million someplace else, in the areas that we were just examining.

I want to tell you something, it is wrong. You are going to crush the morale of these people. I do not want to engage any longer, because the chairman has been most gracious in extending me this opportunity to mention this to you.

I want to leave you with this. I believe that if you want to unravel all the gains that have been made, then you pull this pay differential out and do away with it 1 year early. And that is a terrific way. And what you will get is experienced people putting in their papers early or looking to transfer the hell out of the area.

We do not need that. And it is just wrong. And I tell you something, it demonstrates to me a lack of sensitivity that the people at the top echelon are not listening and do not see and do not hear what is taking place. And do not take it personal. I told you before I do not hold you responsible for all of this nonsense that has taken place, and we do not. That would be wrong.

But this is an area that I think whether you are acting or whether you are there, you should be fighting for these people. It is important for the esprit de corps. They have gone through enough. We are talking about the millions of people who fly in, and they should be able to know and depend that they are getting the best. They are not getting people who are angry, who are disappointed.

I want to tell you, I do not want to fly in there if you pull that differential out. I think it will make a difference. I think it will hurt the morale and the operation and the safety of the air corridors in the crowded metropolitan regions.

And so this is not parochial. This comes down to safety. And I do not have anybody who works there. I have no relatives there, thank God. [Laughter.]

Thank you, Mr. Chairman.

Senator LAUTENBERG. Thanks very much, Senator. It is also true in L.A. and Chicago, and areas not only of high stress, but high cost. And one cannot be totally free to concentrate on one's work if problems at home are difficult, and the stress factor added to that. That does cause a problem. We both support the continuation of that program.

Thank you, Joe.

NONDEPARTMENTAL WITNESSES

AIR TRANSPORT ASSOCIATION

STATEMENT OF JACK RYAN, VICE PRESIDENT, AIR TRAFFIC MANAGEMENT

INTRODUCTION OF WITNESSES

Senator LAUTENBERG. We welcome Mr. Ryan and Mr. Boyer.

Mr. Ryan, if you would go first and take just 5 minutes or so to summarize your statement, we would appreciate it. Your full statement, as you heard earlier, will be included in the record. And I ask you to proceed.

Mr. RYAN. Yes, sir; thank you, Mr. Chairman. I appreciate this opportunity to discuss ATA's views on the FAA's air traffic control modernization procurement reform and other budget issues related to expansion and reliable operation of the ATC system.

It is crucial that the most important phases of the advanced automation system continue and be supported by the industry and Congress. We cannot cancel the program and start all over. We believe that the initial phases of the program which still can be implemented are the initial sector suite system and the terminal advanced automation system [TAAS]. These phases of AAS are important to replacing old technology and providing the base system for future expansion.

Recently, the Volpe National Transportation Center testified before the House Appropriations Committee on the results of their benefit/cost study of AAS. The study showed that there are no benefits to users from AAS until the software enhancements of the Initial AERA Services are put into services, which will provide controllers the tools to clear air carriers on user preferred trajectories.

When this happens, air carriers can expect direct savings of over $200 million a year. This is not a trivial economic savings to air carriers.

ATA recently had the opportunity to meet with the FAA and IBM leadership to help us to better understand the AAS dilemma, and to consider a constructive course of action. We believe that the steps now taken and announced by FAA are prudent, and we support them, subject to the recommendations below, and assuming continuing vigilance and discipline by the FAA and the contractor assume that valid controller and user concerns are accommodated without generating additional delays.

We believe the real challenge is to assure continuity of purpose and leadership to keep this program on a proper path.

The first commissioning of real automation aids for controllers, which will improve the system, just cannot wait until the year 2000. Therefore, we recommend to the FAA and to the committee:

One, to establish an internal advocate for the needs of the airspace users to balance these needs with the needs of the FAA organization; two, proceed aggressively with the initial sector suite system as the foundation for what is to follow; three, pursue aggressively the early implementation of automated en route air traffic control system functions and introduce the capability in Seattle immediately after commissioning ISSS in order to provide valuable benefits to airspace users; four, proceed rapidly with the development of the terminal advanced automation system; five, move rapidly to system decisions with respect to the right solution for smaller TRACON's; six, pursue aggressively the early implementation of terminal area traffic control systems, starting with the center TRACON automation system [CTAS]—initial CTAS applications should be on existing ARTS–III systems; and, seven, review and reach decisions within 12 months as to whether the area control computer complex and the tower control computer complex are still the best solution—as needed, modify the system architecture to encompass the new requirements.

We press on to complete modernization of the air traffic control system or we will face unacceptable consequences. As the economy improves, the number of flights handled by the air traffic control system will increase. The Volpe study concluded the most cost beneficial step in modernization program for airlines is AERA. Therefore, it is of the utmost importance that FAA be given the funds and authorization needed to proceed with the program to develop and implement initial AERA services in parallel with the ISSS effort.

This concludes my statement, Mr. Chairman.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Ryan. Your full statement will be made part of the record.

[The statement follows:]

STATEMENT OF JOHN R. RYAN

My name is John R. Ryan, I am Vice President of Air Traffic Management of the Air Transport Association, which represents U.S. scheduled airlines.

I appreciate this opportunity to discuss our views on the Federal Aviation Administration's air traffic control modernization, procurement reform and other budget issues related to expansion and reliable operation of the ATC system. These are the keys to ensuring improved levels of safety in the future, as well as providing adequate aviation system capacity to meet future needs of the travelling and shipping public.

ATA member carriers have supported the National Aviation System (NAS) Plan, now called the Capital Investment Plan, since its inception. The program is fundamental to keeping the ATC system safe and to making it more efficient. Safety is important to the viability of the National Air Transportation System and we believe, as the records show, that the system is safe. But the system is not as efficient as it should be and that is equally important to the viability of the National Air Transportation System. One of the more important reasons the ATC system is not efficient is the lack of modern automation tools promised by the Advanced Automation System (AAS) which is severely behind schedule.

The Advanced Automation System design competition contract was awarded to IBM and Hughes in 1984. The production contract was awarded to IBM in 1988, 4 years later. The cost of the design competition phase of AAS was about 450 million dollars. Design competition has not been an effective tool for FAA procurement of major systems. FAA spent 80 million dollars in design competition for the "Host" computer contract. The production award for the host computer was 191 million dollars. Since the contract called for off-the-shelf equipment, the host contract should not have gone through the design competition phase. what's more, GAO recommended FAA continue the "Host" design competition for another year, which would have cost another 40 million dollars and further delayed implementation of the host computer system. Fortunately, FAA resisted the GAO recommendation and awarded the contract holding the design competition costs to 80 rather than 120 million dollars. It still took FAA 7 years from inception (1981) to last site implementation (1988) to complete the "Host" program.

In December 1990, IBM and FAA announced a 19 month slip in the AAS program schedule. The slip was due to additional requirements and the realization that the original schedule was unrealistic. The airline industry is appalled at the recent reports of another 14-month delay and of the FAA's continuing failure to field the Advanced Automation System on schedule. Completion of all phases of the advanced automation program has altogether been delayed from 1996 to 2002 and has increased in cost from $2.5 billion to about $5 billion dollars. Mr. Chairman, it is important to note at this point that if the AAS program reaches its final conclusion as originally planned, it will have taken almost two decades. We believe a significant amount of delay in the AAS program can be attributed to Federal procurement procedures.

Federal procurement laws properly place heavy reliance on competition, but provide losing bidders with numerous opportunities to protect and thereby delay purchases. Coupled with Federal personnel policies which limit managers ability to reward efficiency, these procurement policies invariably lead to long drawn out acquisitions which occasionally result in obsolete equipment by the time of delivery. General Accounting Office and Congressional second guessing often result in FAA managers opting to proceed at a glacial pace, particularly since the users are captive and the Federal employee obtains no reward for efficiency. The cumbersome procurement system, funding uncertainties, and lack of incentives result in a lack of accountability, the inevitable result of which is the failure of the FAA to bring on line needed innovations and technological enhancements in a timely manner.

The recent announcement of further delay of the advanced automation system has put the whole program in jeopardy and it demonstrates the FAA's past inability to manage the requirements process. A program of this magnitude and importance requires the dedicated effort of the best that the government and computer industry have to offer and it is clear that in order to successfully implement such a program, increased oversight by top FAA and contractor management is necessary, including the introduction of tight discipline in the requirements setting process.

It is crucial that the most important phases of the Advanced Automation System continue and be supported by the industry and Congress. We cannot cancel the program and start all over.

We believe that the phases of the program which still can be implemented are: the initial sector quite system (ISSS) and the terminal advanced automation system (TAAS). These phases of the AAS are important to replacing old technology and providing the base system for future expansion. The first meaningful productivity improvement to AAS—from the viewpoint of the airlines and other users—is the advanced enroute automation phase known as AERA. The software program known as "Initial AERA Services" should be pursued in parallel with the ISSS and TAAS phases to be ready for implementation as soon as possible after ISSS is delivered. This phase of AAS if extremely important to air carriers.

Recently, the Volpe National Transportation Center testified before the House Appropriations Committee on the results of their benefit-cost study of AAS. The study showed that there are no benefits to users from AAS until the software enhancements of initial AERA services are put into service which will provide the controllers the tools to clear air carriers on user preferred trajectories. When this happens, air carries can expect direct savings of over $200 million a year. This is not a trivial economic savings to air carriers.

The TAAS program is likely to change rather dramatically due to the FAA's recently announced change in plans to *not* consolidate all the Terminal Radar Approach Control (TRACON) facilities into the 22 enroute Air Traffic Control Centers and the New York TRACON.

For many reasons, both technical and political, this consolidation goal is no longer realistic. FAA now plans to consolidate some of their TRACONs (about 38) into 9 locations, 5 of which are already funded. They no longer intend to combine enroute and terminal air traffic control facilities. This will leave 170 small TRACON facilities that are not presently provided for in the TAAS plan. This is a crucial decision because it now requires FAA to rethink the automation solution for small TRACONS. The answer is definitely *not* to begin a new acquisition process for these facilities because of the lengthy period of time required to complete a new acquisition.

There is an urgent need to expedite the implementation of new automation technology at many terminal locations. These improvements have been on hold, due to the delay of the automation of enroute air traffic control facilities. Advanced automation for terminal airspace is now scheduled for 1997 at the earliest. The existing terminal facility automation equipment is 1960-vintage, capacity-constrained technology. The equipment is increasingly difficult to maintain, and must be replaced. The terminal advanced automation system element of the Advanced Automation System is fundamental to the need for terminal automation and must be accelerated, so that FAA can implement the technology at high priority terminal airspace facilities. In addition, a decision must be made soon on modifications that may be needed to TAAS to satisfy requirements of the 170 smaller TRACONS.

Unfortunately, while the aviation user community is moving forward with technology advancements applicable to the future of air traffic control, the FAA continues to lag seriously in this area. For example, the first Boeing 747–400 equipped with fully certified avionics capable of automatic dependent surveillance satellite data communication (SATCOM) was delivered in September 1990 to United Airlines. ATA member airlines worked vigorously with the aerospace industry and the FAA for several years to achieve this objective. United States and international airlines, as well as international business aviation are taking delivery of many more aircraft equipped with this capability. The improvements to oceanic air traffic control are vital to achieving an acceptable return on investments made by the airlines and business aviation. We expect the delivery rate of new aircraft equipped with SATCOM to increase and some airlines will be retrofitting some of their aircraft with satellite communication and the Global Positioning System (GPS) for navigation. The airlines are relying heavily on the planned ATC system automation improvements for increased capacity in oceanic airspace.

Additionally, oceanic automation is impacted by the delay in AAS. The tools controllers are using to control aircraft over the ocean are the same as they used in the 1950 era. Oceanic Controllers are still using maps, plexiglass, string and grease pencils to plan oceanic air traffic. The Oceanic Display and Planning System (ODAPS) contract was awarded in 1985 and still hasn't been completed. The latest estimates for full operational readiness of the ODAPS system in New York is 1995—ten years later at a cost of more than 50 million dollars. FAA intended to incorporate the ocean automation function in the AAS but now is considering another separate procurement due to the delay in AAS. Does this mean that the ocean air traffic controllers will wait another ten years before they have adequate tools to control aircraft over the ocean?

We believe it will be possible to achieve an increase in controller productivity and efficiency of operation for users through improved automation, followed by the implementation of data communication, and ultimately, a substantial reduction in standard separation minima using satellite communication and navigation in the oceanic ATC system.

WHAT SHOULD WE DO?

ATA recently had the opportunity to meet with FAA and IBM leadership to help us to better understand the AAS dilemma and to consider a constructive course of action.

FAA's Acting Administrator Del Balzo acknowledged that perhaps the most serious causes of the present situation were of FAA's own making. The most important, incredibly, has been the lack of active involvement of top management in the resolution of the growing difficulties. Perhaps most important, top management did not adequately monitor the process of laying out and then controlling the functional requirements the contractor was expected to meet. It is clear now that continuous, well-meaning changes in the details of what was actually required of AAS created a serious, self-imposed problem for FAA. The process of establishing requirements went on far too long without crystallizing the design, and the learning processes and changing perceptions by successive groups of ATC people kept the system needs and specifications in flux, exacerbating delay and cost problems. As noted above, that process created a situation in which delay and cost rose as new requirements kept being added. During the process IBM lost control of the program's baseline.

We believe that the steps now taken and announced by FAA are prudent and we support them, subject to the recommendations below and assuming continuing vigilance and discipline by FAA and the contractor to assure that valid controller and user concerns are accommodated without generating additional delays. We believe the real challenge is to assure continuity of purpose and leadership to keep this program on the proper path.

RECOMMENDATIONS

As previously stated, we cannot allow the cancellation of AAS and start over. We agree that the proposed schedule of first operational commissioning of the Initial Sector Suite System in October 1996 is probably the best that can be achieved, but we believe this schedule milestone must be strictly adhered to. We further recommend that FAA restructure the AAS contract to insure the early completion of elements which can be fielded to achieve early benefits: ISSS and TAAS. If Congressional relief is needed to empower FAA to undertake such restructuring, we urge that such relief be given.

The first commissioning of real automation aids for controllers which will improve the system operation can't be allowed to be decayed until after 2000. Therefore, we recommend that FAA:

1. Establish an internal advocate for the needs of the airspace users to balance these needs with the needs of the FAA organizations. We believe a "new contract" between FAA and the users is essential if user support for the program is to continue. We recommend that FAA, perhaps through this inside advocate, work with the user community on a reoccurring basis, possibly quarterly, to provide regular reviews of schedule and cost milestones as well as candid advice on obstacles that are impeding timely deployment in the field.
2. Proceed aggressively with the Initial Sector Suite System as the foundation for what is to follow, freezing requirements soon, resolving remaining open issues and establishing a discipline for dealing with changes in requirements. Establish October 1996 first commissioning as a firm date.
3. Pursue aggressively the early implementation of the Automated Enroute Air Traffic Control System (AERA) functions and introduce the capability in Seattle immediately after commissioning of ISSS in order to provide valuable benefits to airspace users.
4. Proceed rapidly with the development of the Terminal Advanced Automation System (TAAS) as the appropriate system evolution for major terminals (TRACONS).
5. Move rapidly to system decisions with respect to the right solution for smaller TRACONs, recognizing the benefits of using the already written TAAS software and AAS contractual arrangements for these systems.
6. Pursue aggressively early implementation of the Terminal Area Traffic Control System, starting with the Center TRACON Automation System (CTAS), initial CTAS applications should be on existing ARTS-III systems at facilities with digital displays and their enroute facility counterparts. Plan on the earliest possible national implementation of TATCA capabilities (and related airport surface automation capabilities) on the TAAS.
7. Review, and reach decisions within 12 months, as to whether the Area Control Computer Complex (ACCC) and the Tower Control Computer Complex (TCCC) are still the best solutions. As needed, modify the system architecture to encompass the new requirements.

In conclusion, we are reassured by the intervention of IBM's Federal System Corporation CEO Gerry Ebker in the management of AAS day-to-day activities. He brings a wealth of experience, tenacity and discipline to the process that is sorely needed.

We must press on to complete modernization of the air traffic control system or we will face unacceptable consequences—foregone opportunities to improve safety and unacceptable air traffic delays. As the economy improves, the number of flights handled by the air traffic control system will increase. The Volpe study concluded that the most cost/beneficial step in the modernization program for the airlines is AERA, therefore it is of the utmost importance that FAA be given the funds and authorization needed to proceed with the program to develop and implement initial AERA services in parallel with the ISSS effort.

We must continue to pursue those ATC modernization programs that will improve safety as well as economic efficiency for airlines, passengers and shippers dependent on domestic and oceanic air traffic services.

This concludes my statement, Mr. Chairman. I would be pleased to answer your questions at this time.

AIRCRAFT OWNERS AND PILOTS ASSOCIATION

STATEMENT OF PHIL BOYER, PRESIDENT

Senator LAUTENBERG. Mr. Boyer.

Mr. BOYER. Mr. Chairman, my name is Phil Boyer. I represent the over 300,000 members of the Aircraft Owners and Pilots Association. This represents about 90 percent of the civilian aviation fleet, the nonmilitary and noncommercial airline segment of the fleet, which is the largest portion.

In my statement today, I will talk about general policy. You can review the written testimony and see our suggestions for the priorities for 1994.

Like Senator D'Amato, we are going to be talking about billions of dollars worth of spending in the NAS plan. I would like to call attention, just as he did, to one small area of the modernization plan that is under fire in just recent weeks. And so if I could call your attention to the fact that a small plane is going to fly from, let us say, our headquarters at Frederick, MD, this afternoon—a single engine, let us say, 172, typical of our fleet, and go to Dayton, OH, for some perhaps business purpose, since a majority of the flights now of the general aviation fleet are for some utility.

So we would pick up the phone—and you are very active and involved in the transition to the modernization of our flight service station system—we would pick up the phone and dial an 800 number, and without the long wait we had before, get through to that briefer. And we would begin getting the information and taking it down as a pilot as fast as I could, maybe from the phone booth over here outside the hearing room on that particular flight.

As I give my testimony on the other portions of the NAS plan, just keep in mind that that phone call is proceeding as I am talking.

The current focus, however, of the budget deficit that is alluded to by President Clinton and his trying to stimulate the economy makes this hearing very, very timely at this point.

We just got through a little more than 1 month ago sending every one of our members the administration's plan to tax general aviation with an added fuel tax and added registration fee on all aircraft. And at the same time we responsibly came through, because our pilots are people who want to support the economy, and said there is a better plan. And that plan would be to cut some $4 billion from four multibillion-dollar FAA programs, part of the national airspace system plan.

Often, the FAA wants to spend too much on programs the industry does not want and cannot afford, and too little on those which are vital and yield immediate benefits. Ours is a fragile industry, general aviation, no matter how you look at it, and we could ill afford this tax burden.

It is ironic and revealing to note that satellite technology was barely mentioned, if at all, in the FAA's modernization plan. And now, 12 years later, satellite technology clearly holds the most promise for efficient and affordable airspace modernization.

You yourself know the way the personal computer has taken over our homes, our offices, and the computer you bought last month may be outmoded tomorrow. And that same thing is going on with the technology that makes up our air transportation system.

This little box, for instance. A worldwide data base of airports will register my ground speed as I walk outside, and is affordable technology for both the airlines and for general aviation.

Senator LAUTENBERG. It is good for even walking.

Mr. BOYER. Right. Our satellite system. And our satellite system, good Mr. Chairman, will benefit not only aviation but all of transportation. Hikers, bikers, maritime, and others.

Our analysis suggests that billions can be saved over the next 10 years by redirecting the FAA's airspace modernization effort toward this very affordable technology. On route navigation—totally possible today with this device. We are right on the edge now of approach navigation.

And with your permission, I would like to show you industry with the cooperation of the FAA working together.

Senator LAUTENBERG. How long is the clip?

Mr. BOYER. Is it about a 1-minute clip. On the video monitor you see a typical instrument approach.

[Video.]

Mr. BOYER. It starts at about the 3 o'clock position, it goes up to 1 o'clock. The airplane flies, then comes down to about 10 o'clock and the airport is down at about the 8 o'clock position.

At Atlantic City at the end of this year AOPA pilots in an AOPA airplane flew this approach with FAA monitoring it the entire time, and found out that general aviation aircraft can successfully stay within the same criteria that is necessary with our present land-based approach system.

This was off-the-shelf technology, not specially designed, in order to fly these approaches at Atlantic City.

That is enough of the tape.

AOPA recommends that an appropriation of at least $20 million is necessary to ensure that aggressive research goes forward in this area.

Remember I mentioned the four-for-four plan that we talked to our members about? Some 22,000 letters, and I am sure some to your office, have already been received on the Hill in response to our cry.

The members are saying do four things. Cut way back on the MLS Program for a savings of at least $1 billion. Leave MLS, an outmoded technology, only where it is needed at international hub airports. Eliminate the long-range radar program. This kind of device will allow us to tell the ground where our airplanes are. It will tell us where our buses and cars are.

Baltimore is going to be equipping its bus system with GPS to let headquarters know where each and every bus is.

Senator LAUTENBERG. How much is that unit, do you know?

Mr. BOYER. I do not have that number.

Senator LAUTENBERG. I bought one for about $1,200 about 1½ years ago.

Mr. BOYER. This one is $750.

Senator LAUTENBERG. Boy, they are fantastic, even if you like to play and can afford to pay it off a couple of bucks at a time. It is great for boaters, by the way.

Mr. BOYER. The advanced automation system, which I have already talked about, is the core of the $32 billion NAS plan. It is $5 billion. We say that it is needed. The industry position is the same as my compatriot over here, that the program is necessary, but we can cut back the dollars.

And the area control facility that has been alluded to also is part of our four-for-four plan, $4 billion in savings.

Remember that briefing I was talking about? About now it would be over with. I would have copied down from the vocal briefer on the other end at one of our flight service stations. Well, in recent weeks, we have learned that the FAA is about to cut back the DUATS system which allows a personal computer to access the same weather information. The last 4 years we have seen that grow from zero to 4 million transactions.

Just like Senator D'Amato said, are we going to take a small program—$10 million, and it could be less each year, because look what the person would get if they had a personal computer. All this information totally printed out that they can carry in the cockpit. And remember, safety is an issue here, too.

The general aviation fleet accident record is the best it has ever been as far as safety is concerned, and yet 25 percent of all our accidents are weather related. Unlike the airlines, we fly in the weather, not above it. And 40 percent of our fatal accidents are weather related.

It seems in a day in which we are building fiber networks, melding the computer, the telephone, and the television set, we do not want to eliminate a $10 million per year that will grow each and every year and is a terrific augmentation to our existing flight service system.

Thank you.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Boyer. Your full statement will be made part of the record.

[The statement follows:]

STATEMENT OF PHIL BOYER

Mr. Chairman, my name is Phil Boyer, and I am President of the Aircraft Owners and Pilots Association.

AOPA represents the interests of more than 300,000 individual members who own and fly general aviation aircraft to fulfill their personal and business transportation needs. That is 60 percent of the active pilots in the United States. AOPA members own or lease 62 percent of the aircraft in the general aviation fleet.

We appreciate this opportunity to come before the Subcommittee on Transportation & Related Agencies to present our views on the cost and pace of FAA's airspace modernization programs. In my statement today, Mr. Chairman, I will speak largely in terms of general policy. With the Committee's permission, we also plan to submit an additional statement similar to that we have provided in past years which outlines our suggested spending priorities for fiscal year 1994. That statement will be more detailed in nature.

The current focus on the budget deficit makes today's hearing especially important. As you know, President Clinton's primary goal is to stimulate the economy and reduce the staggering federal deficit. We applaud his efforts. But the President's plan relies very heavily on tax increases to accomplish its objective including the proposed energy tax and a substantial new annual aircraft registration fee which the President intends to levy specifically on AOPA members.

Consequently, it is vital that FAA's spending priorities be thoroughly scrutinized and that the agency be compelled to strictly and efficiently manage the resources made available by this Committee. FAA often wants to spend too much on programs the industry doesn't want and can't afford, and too little on those which are vital and yield immediate benefits.

Ours is a fragile industry which can ill afford the increased tax burden which will result from the President's plan. We can predict with certainty that there are ample savings to be found within FAA's budget. We hope this Committee will take strong action to ensure that those savings are realized.

SATELLITE TECHNOLOGY

It is ironic and revealing to note that satellite technology was barely mentioned, if at all, in the FAA's original National Airspace Modernization Plan. Now, twelve years later, satellite technology clearly holds the most promise for efficient and affordable airspace modernization.

AOPA has long maintained that the FAA should shift away from the ground based design inherent in the NAS Plan and incorporate emerging satellite technology into its current Capital Improvement Plan. Advancing technology has overtaken much of the NAS Plan. This is especially true, for example, with respect to technology such as the Microwave Landing System. For en route navigation and precision approach technology, satellites represent the way of the future.

Furthermore, our analysis suggests that billions can be saved over the next ten years by redirecting FAA's airspace modernization effort and moving aggressively toward implementation of a system relying on satellites and compatible technology such as LORAN-C. Significant attention is often paid to the subject of FAA procurement reform. But we suggest that the problems with FAA's modernization programs are not necessarily related to an inability to obtain new equipment quickly or easily. Rather, they are more generally a matter of policy choice and management direction. This is one such area where significant improvement can be achieved through appropriate leadership and policy choices.

Congress has responded enthusiastically to our message regarding satellite technology. And the FAA now seems to be moving in the right direction, having officially acknowledged last year that "satellite navigation systems could lead to the eventual phaseout of existing National Airspace System ground equipment while maintaining or improving existing levels of service. In addition, satellite-based navigation systems provide the potential for new navigation and landing service." In its Satellite Navigation Program Plan for fiscal year 1992 through fiscal year 1997, FAA also notes other specific benefits of satellite technology:

—Consolidation of navigation functions in a single receiver, thereby enabling the eventual phaseout of older navigation aids at substantial savings;
—Improved safety with reduced separation minimums resulting in increased system capacity;
—Accurate area navigation by using efficient, optimized, user-preferred flight paths;
—Significant reductions in aircraft operating costs through the use of efficient route structures;
—Accurate position reporting to enable uniformly high quality worldwide air traffic management;
—Improved ground and cockpit situational awareness to reduce runway incursion;
—Increased landing capacity with up to Category 1 precision approach service to all runways and airports for all aircraft types, including helicopters.

These are the benefits we have highlighted throughout our long-term effort to advocate increased emphasis on satellite technology. The aviation industry has known that these benefits were possible and that some are already within reach. But we needed some help from Congress to persuade FAA to look forward rather than back. Thankfully, it now appears that FAA is on the right track.

This Committee will play an important role through its decision regarding the amount to be appropriated in fiscal year 1994 for the FAA's Satellite Navigation Program. The amount must be sufficient to meet the needs of the satellite development program—given that the GPS satellite system is scheduled to be made available for widespread civil use beginning in 1994.

We and our industry colleagues agree that satellite navigation programs should be given high priority among FAA's RE&D needs. AOPA recommends that an appropriation of at least $20 million is necessary to ensure that aggressive research goes forward in this area.

The substantial savings and benefits inherent in transitioning to the system of the future are too good to pass up. An early transition will save billions on some of the existing Capital Improvement Plan programs which will be unnecessary or incompatible with the new system.

THE SAVINGS REALIZED—AOPA'S "FOUR-FOR-FOUR" ALTERNATIVE

As an alternative to the substantial new taxes on general aviation which the President has proposed, AOPA is advocating cuts in four expensive FAA modernization programs. Our "four-for-four" alternative calls for $4 billion in spending cuts from four major FAA programs, all of which are troubled or unnecessary initiatives. Furthermore, each is a component of FAA's $32 billion Capital Improvement Program. These four programs are the Microwave Landing System, the Long Range Radar replacement program, the Advanced Automation System, and the Area Control Facility program.

In the context of today's hearing, it is useful to look at the potential savings in these four major programs because they clearly illustrate the impact of satellite technology on FAA's modernization plans. While these are among the most obvious savings, they are certainly not the only savings to be realized over the next ten years by redirecting FAA's modernization efforts towards satellites.

Microwave Landing System.—Both general aviation and the airlines have balked at the Microwave Landing System, which is the technology put forth in the 1970's to improve upon Instrument Landing Systems for precision approach capability. But the GPS satellite technology of today offers superior and less costly alternatives for future precision approach guidance to airport runways. As FAA acknowledged recently in Geneva at an international conference on future landing systems, it envisions that MLS procurement (previously projected at 1,250 units) will be cut by as much as 1,000 units—an 80 percent reduction.

The only remaining use for MLS is the potential for seldom-needed high precision Category III "autoland" approaches performed only by the major airlines at a handful of international hub airports in the United States. Abandoning procurement of all but the few MLS units needed for this limited application would save approximately $1.4 billion in federal spending.

Long Range Radar.—Using GPS satellite technology and datalink, it will be possible for aircraft to "self-report" their position to air traffic control computers. This capability greatly reduces the need to upgrade existing long range radars. In fact, such a self-reporting system—called Automated Dependent Surveillance—is already being tested for air traffic control of trans-oceanic airline flights.

The most prudent course to improve long range surveillance capability is to augment existing radars with a satellite-based aircraft position reporting system using datalink. By cancelling the Long Range Radar replacement program, nearly $500 million in federal spending will be saved.

Advanced Automation System.—The Advanced Automation System is the $5 billion core of FAA's $32 billion airspace modernization program, and it has also come to symbolize the stunning cost overruns and poor management which have plagued the NAS modernization plan.

We needn't take the Committee's time by reciting the details of all that has gone wrong with the AAS program. Those problems are well known to you. We merely submit that reduced funding for AAS should be a prudent and productive component of any deficit reduction effort. While we agree with the industry position that the program is necessary and should be continued, the system as designed is overly ambitious and exceeds what is needed or technically feasible. The program should be scaled back, and continued appropriations should be carefully metered to ensure that the history of management and technical problems is resolved.

Area Control Facility.—The Area Control Facility concept is integrally linked to the Advanced Automation System. ACF has been controversial since FAA first proposed transferring operations from all radar approach control facilities and control towers within a specified region to one remote consolidated site. In fact, the Committee is probably aware that the concept has been under review by the FAA. The agency recently announced that it is abandoning plans for massive consolidation down to a mere 23 facilities. Instead, approximately 170 facilities are planned.

By trimming the Advanced Automation System, reducing the scope of the Area Control Facility concept, and realizing further savings in AAS costs associated with the ACF system, we believe potential federal savings could total as much as $2 billion. Realistically, these much delayed programs will not be deployed until at least the last half of the 1990's.

Again, Mr. Chairman, the $4 billion in savings we estimate from cutting or scaling back these four programs represents AOPA's alternative to imposing new taxes on AOPA members and the general aviation community. But these and other cost savings should be pursued under any circumstances. They illustrate the realistic financial impact of satellite technology on FAA's modernization plans.

MODERNIZATION OF WEATHER REPORTING

There is nothing more important to a general aviation pilot than the timely detection and dissemination of hazardous weather information. General aviation pilots fly "in" the weather. The airlines, with the exception of the critical arrival and departure phase, fly "above" the weather. To AOPA members, weather information is not just helpful, it is potentially life saving.

The National Transportation Safety Board reports that weather has been a factor in approximately 25 percent of all general aviation accidents and a factor in 40 percent of all fatal general aviation accidents. The aviation accident rate could be substantially improved if accurate forecast and timely weather information were more readily available for both preflight planning and in-flight decisions.

That is why we believe some of the most important elements of FAA's modernization effort are those relating to weather reporting services—such as FAA's flight service stations. I'm sure the Committee is aware of the long-standing controversy surrounding the flight service station modernization program. This has been a major priority for AOPA during the past decade.

Thanks to the support of this Committee, legislation was passed in 1990 which requires FAA to retain Auxiliary Flight Service Stations in areas of unique weather or operating conditions. AOPA is the primary advocate of Auxiliary Flight Service Stations. We believe that FAA's 61 automated flight service stations alone are not enough to meet the needs of pilots flying in areas of unique weather.

While FAA was originally opposed to the Auxiliary program, the agency has devoted considerable time and effort in what appears to be a good faith attempt to satisfy the legislative mandate for auxiliary stations. We will continue to work with FAA to ensure that the program receives a fair opportunity to succeed, and we will appreciate the Committee's support in this regard.

A valuable adjunct to the flight service station program is the Direct User Access Terminal System, or DUATS. This system allows general aviation pilots to access weather information directly through the use of a personal computer and a modem. A fresh controversy has arisen lately as a result of reports that FAA might cancel the DUATS program or alter it to require pilots to pay for accessing the system. AOPA has expressed its strong opposition to either of these possibilities. The details of our position are outlined in my April 15, 1993 letter to Acting Administrator Joseph Del Balzo, a copy of which is attached to my formal written statement.

Our concern stems from the fact that FAA seems to be willing to abandon this new and valuable system for obtaining weather information. This would be a step backward from FAA's recognition of the need to promote modern technology in all of its modernization efforts. The DUATS service is among the most cost-effective methods FAA has developed for providing weather information to pilots.

Each pilot contact through DUATS costs less than $2.50, compared with the four times greater cost of $9.50 per contact through the flight service station program. Furthermore, AOPA member surveys indicate that pi lots support continuation of DUATS services and that access to such safety related weather programs is among the most important values which pilots receive from the FAA in return for the aviation taxes they pay.

We hope the Committee will support our call for FAA to continue the DUATS program in its current form.

SUMMARY

In summary, Mr. Chairman, we are encouraged by the FAA's recognition of the benefits we have highlighted throughout our long-term effort to advocate increased emphasis on satellite technology. Satellites are the way of the future and should be the centerpiece of FAA's modernization initiatives throughout the rest of the century and beyond. We urge the Committee to help keep FAA focused on the need to look forward rather than back. The result will billions in savings compared with the FAA's original NAS modernization plan.

Mr. Chairman, this concludes my comments. I will be happy to respond to questions from the Committee.

LETTER FROM PHIL BOYER

APRIL 15, 1993.

MR. JOSEPH M. DEL BALZO,
Acting Administrator—AXO-1, Federal Aviation Administration,
800 Independence Ave., SW, Washington, DC.

DEAR MR. DEL BALZO: Investing in the future is an objective of the current administration, and is a theme the Aircraft Owners and Pilots Association (AOPA) has pursued actively for a number of years. We believe one small but significant piece of "the future" for general aviation pilots is the Direct User Access Terminal System (DUATS). DUATS utilizes available communications technology to provide a pilot's most valuable commodity—an aviation weather briefing. AOPA strongly urges you to ensure that the Federal Aviation Administration (FAA) will continue DUATS at no charge to the user. The DUAT service provides a cost-effective and easily accessible weather information source for all aviation users.

The DUATS service is one of the most cost-effective methods the FAA has developed for providing weather and other information, such as NOTAM's, to the pilot community. The service has developed from a beginning of zero transactions to more than four million in less than five years. This is a clear indication of its success and acceptance by the aviation population. Each of these transactions averaged about four minutes in 1992 at an expense of less than $2.50 per transaction. This is far below the cost of providing weather to users from any other government system. The cost of the flight service station system providing a similar service is approximately $9.50 per transaction or almost four times the cost of a DUATS transaction. We firmly believe that DUATS is a valuable adjunct to the current flight service program.

In our view, the proposed discontinuance of DUATS would be a step backward. It would be in conflict with FAA's recognition of the effectiveness and the use of modern technology as it is promoting the use of automated products in other arenas such as AWOS/ASOS, datalink communications, and other air traffic and flight information services.

AOPA surveyed its members during the week of March 29, 1993, regarding the DUATS service. The survey results indicate a broad and intense support for DUATS services among our membership. DUATS, as part of the overall weather information mix, is essential to the provision of easily accessible weather information for preflight planning and flight plan origination. Eliminating this excellent service or charging for it through a "900" listing would likely result in the demise of DUATS. You should know that the majority of survey respondents were not in favor of paying for this service. General aviation pilots universally believe that safety related weather products are one of the most important services from FAA received in return for the aviation taxes they pay.

In addition, our members believe it is important to provide a variety of sources for pilots to access weather information without having to rely on a sole source for this information. This is especially true during periods of marginal or instrument meteorological conditions when the flight service stations are often inundated with briefing requests while DUATS is easily accessed.

AOPA understands that the DUATS contract is due to expire soon and we have several suggestions concerning the future and user priorities for discussion during the renewal process. AOPA believes that the expense for DUATS services should diminish over time. Clearly, the current contractors had significant expenses to begin providing DUATS with outlays for computer hardware and software, "800" line service, and other start-up administrative costs. Over the last few years, these costs should have been recovered under the contract agreements with the DUATS providers. While AOPA does not have expertise in structuring FAA contracts, we believe the renewal contract value could be considerably less than the five year, 50 million dollar contract currently in effect.

The contract term may also be an area for cost efficiency. For example, the FAA should consider other alternatives to agreeing to another five year contract. Perhaps the term should be for two or three years or for another five years with a two year, two year, one year renewal option. This type of contractual arrangement would allow the FAA and the vendors the advantage of implementing significant future technological alternatives as they are developed and recognize additional efficiencies more quickly. Additionally, we believe that the system could be more efficiently structured. For example, rarely, if ever is there a busy signal when accessing the system which may indicate that the system is far too robust. Modems for personnel computers are now using a baud rate of 9600 which is four to eight times faster than what was available four years ago. Consequently, the transaction time will drop reducing vendor expenses.

AOPA believes that incentives should be provided in the contract that twill entice the vendor(s) into placing more emphasis on value-added services than is currently available. And, as we stated in comments to the FAA regarding the DUATS contract in May 1992, we believe such services as a FAX capability and an option to choose only those items the pilot wishes to access rather than the volume of paper that currently must be provided under current FAA specifications. We firmly believe that future awards should ensure competition that benefits the government providers as well as the pilot consumers.

We also believe that the FAA should provide for the use of a user identification for access to DUATS. We are not suggesting that anyone wishing to access the system be denied, but we do believe that by using an I.D. number for access, FAA and the contractors would be able to better analyze who is using the system and how often. Consequently, more accurate estimates could be made regarding use of this service by the general aviation user.

In summary, AOPA is very concerned with the possibility that FAA is considering cancelling or altering DUATS in such a way that it will no longer be a valuable service to its customers. The system utilizes new technology to provide a valuable safety service to a large audience, is cost-effective, and provides an alternative to services at the FSS especially during periods of peak loads. As stated earlier, this weather information product is one of the most successful programs that the FAA has provided to the aviation community, particularly to general aviation pilots. DUATS makes use of available technology and eases access to safety oriented weather products.

DUATS was an investment in the future more than four years ago and is now utilizing these technologies to provide a valuable, cost-effective service to an increasing number of pilots in the general aviation community. We strongly urge the FAA to continue contracting for weather service which is an important part of the overall weather information mix.

Sincerely,

PHIL BOYER, *President*.

PROGRESS OF CAPITAL INVESTMENT PLAN

Senator LAUTENBERG. Senator Domenici, did you want to talk to these folks?

Senator DOMENICI. No; I do not, Mr. Chairman. I have a little time, so whatever your pleasure is.

Senator LAUTENBERG. I would just ask a few questions here and now.

Senator DOMENICI. Sure.

Senator LAUTENBERG. I have an amendment that I have to do and then we will call on Mr. Del Balzo, the Acting Administrator. Thank you both very much for your testimony.

You know, one of the things that we are wrestling with as you have heard and as you are very much aware is a question put by Admiral Stockdale. Who are we, and how did we get here?

We hear distressing statistics about delays costs involved with FAA's capital investment plan. What we do not know is whether the plan is accomplishing what it is supposed to. And I think it relates exactly, Mr. Boyer, to what you said and also to some of the comments made by Mr. Ryan.

If we are looking at systems that have a targeted objective somewhere that may be either obsolete or for other reasons require change, because a new technology offers a great possibility, how do you evaluate FAA's progress in this area in terms of examining what is available, what is new, where have we been?

You know, one of the most unpleasant tasks is to find out as an individual, a business, or a government that you spent an awful lot of money accomplishing not an awful lot. Now, some of it can be chalked up to experience and learning and changes in technology. It happens. But how do you evaluate FAA's progress in determining their objective and deciding what plans they ought to be dealing with, and whether they are on target or not?

Mr. BOYER. I think we have to look at that in the decade of the eighties, and then look at it in the decade of the nineties. I think significant improvement in the last 3 to 4 years with technology responding so rapidly and the global positioning system coming into such a forefront, I think the FAA has had a much more enlightened position on implementing that into this complex plan that was designed years ago, when it was not even in existence.

So, like the GAO, I think we have come a long way in just the last few years in an enlightened approach by the administration in having somewhat of an open architecture so that, like the computer business talks about somewhat, like the sensor can be changed.

Three years ago, it looked like loran was the way to go. Now it is GPS. And they have been able to respond very rapidly in that regard at this point.

Senator LAUTENBERG. Are you suggesting that perhaps some of the milestones, some of the benchmarks that we are looking at for the development of the earlier system, the AAS system, now could be abandoned because they have not accomplished much in terms of the mission? We know of the overruns in cost and time. I assume that things that have been done in the last decade are not totally antiquated in terms of our new needs, or are they?

Mr. RYAN. Mr. Chairman, may I comment on that? The advanced automation system is still relevant and will be relevant for a long time, especially if the AERA system that I recommended in my testimony is advanced to give the air carriers of the United States some economic benefit.

And TSC in their study, which I thought was extremely conservative, estimates a value to AERA in the amount of at least $200 million a year, even though the sensors, as Mr. Boyer rightfully points out, are changing. We thought it was loran that might be it several years ago, but certainly GPS is where we should be going. And the administration, I hope supported by Congress, should be supporting more money for a data link; more money for local area and wide area differential for GPS. And unlike Mr. Boyer, unfortunately, I do not agree with him with regard to at least two out of the four points he talks about.

There is a lack of specificity. It is a nice thing to say to reduce the amount of money in AAS without any specificity. It is a nice thing to say that the ACF support money, whatever that is, should be reduced. I think the FAA, in announcing their limited consolidation plan where they have now decided, rightfully so, that they cannot take 208 terminal facilities and put them in 23 centers, that as the plan stands right now it will be approximately 38 facilities in 9 MCF's. And I think that is a valid and a realistic plan.

I do not believe that the 39 long-range radars that AOPA wants to eliminate can be eliminated yet. I think that eventually primary radar will be a thing of the past. I think MODE S is going to overtake all of that with secondary radar at 137 places, and I think we are getting there. We just may not be getting there in the same fashion that Mr. Boyer suggests.

But I think the FAA is on track with the programs they have in the CIP. It is just unfortunately they are late and over budget.

COST OF FLIGHT DELAYS

Senator LAUTENBERG. Mr. Ryan, I wonder if we could elicit a comment on the validity of the $5 billion estimate heard every so often as the cost of the flight delays annually to airlines.

Mr. RYAN. No; I think that is exaggerated by about a factor of three. It is between $1.5 and $2 billion a year based on our estimate of about $46 a minute for a hybrid estimate of all airplanes in the U.S. air carrier fleet.

Senator LAUTENBERG. You may have heard me ask this question before. Is that the direct cost only to the airlines in the aviation business? You are not trying to factor in what happens with the late appointments and what happens with the missed connections.

Mr. RYAN. No, sir; this is direct cost to air carriers. It has nothing to do with passengers.

Senator LAUTENBERG. I would tell you that this is probably the smallest of the factors in the process in terms of missed appointments, missed connections, and lost opportunities, right?

Senator DOMENICI. Absolutely.

Senator LAUTENBERG. So, the major airlines are responsible for collecting the bulk of the income for the aviation trust fund through the 10-percent ticket tax. And because the trust fund's pay for modernization is supposed to lead to cost reductions from the airlines, it does not surprise us to hear that airline managements complain loudly and long about significant delays in many modernization programs.

Where does ATA stand on this, and what do you believe can be done that is not being done already to hasten the benefits of a refurbished air traffic control system?

Mr. RYAN. Well, first of all as my statement said for the record, I think the FAA and IBM are on the right track with regard to the advanced automation.

Senator LAUTENBERG. As of when did they get on the track?

Mr. RYAN. Oh, I would say they got on the track when the FAA issued the cure letter on November 19.

Senator LAUTENBERG. Of the past year?

Mr. RYAN. Yes, sir.

Senator LAUTENBERG. There was a decade of spending and development before that. They were off track, I guess.

Mr. RYAN. Yes; a 19-month delay in December 1990. A 14-month delay that was announced in mid-November, which prompted the November cure letter. And I think since then the administration has put a scrutiny on this program that it never had before.

I think Joe Del Balzo and Jerry Ebker of IBM have this foremost as one of the most important things that they are doing. And I think that the Congress and the industry must continue close scrutiny on the project.

One of the recommendations that I made is that the airlines, air carriers need an advocate—not just air carriers, but users need an advocate including AOPA and others. We need an advocate in FAA. They called upon us in March to brief us and lay the cards on the table, and the problems they had with AAS and how they were going to fix it.

And we do not want to be called in just when they are in trouble. We would like to be called in every quarter to find out what is the status of this project, what is the status of the VSCS data link, MODE S, GPS, a lot of important projects. We think that we need more participation in finding out what FAA is doing.

CAUSES OF EXCESSIVE DELAYS AND OVERRUNS

Senator LAUTENBERG. If I was to ask you in cryptic form if you could tell me what you think caused the excessive delay and overruns over the years before they got on the right track, what do you think that was?

Mr. RYAN. A couple of things. One is an extended competition between the two contractors, which was IBM and Hughes, for 4 years which we did not need which was recommended by GAO. I think it might have been one-half of what that was.

I think the original estimate on the part of FAA was overly optimistic. I mean, that did not add to the delay, it just raised everybody's hopes, and then they were not realized.

There was a system where an overwhelming number of requirements were sent to IBM and, as Jerry Ebker said, they lost control. And you would understand this, having been in automation. They said they lost control of the baseline. And when they lost control of the baseline they continued to trade time and money for schedule. A lack of management of requirements.

Senator LAUTENBERG. Experience, excessive optimism, a whole series of things.

Mr. RYAN. Not only that, it is probably the most complex automation project on the globe right now, and it is bigger than the Apollo project.

Senator LAUTENBERG. Nevertheless, it was not a particularly efficient way to either raise the expectations to suggest or accomplish the mission.

Mr. Boyer, do you have a point of view on that at all?

Mr. BOYER. Only to substantiate what ATA says, and the feeling that the management of the timeline was what was much the cause behind it.

Senator LAUTENBERG. In its cost-benefit of AAS, the Volpe Center study concluded that airline costs would be lower by 2 percent with the addition of the advanced, on route automation feature of the AAS. This would be applicable only to flights 500 miles or more. What is your assessment of that savings, high or low? I mean, it is pretty de minimis but I guess 2 percent.

Mr. RYAN. I think the whole methodology—I mean, I might do it a little bit differently, but it is 44 percent of the airplanes that TSC looked at that were 501 miles or more, and they assessed not 2 percent but 3.3 percent on distance.

In other words, if you did 100 miles, you would say 3.3 miles. At 1,000 it would be 33, and that is substantial saving.

One of the problems with the methodology is that they assumed that of all the flights 500 miles or more, only 60 percent of those flights would be given user-preferred trajectories, in other words the routes that save money—only 60 percent.

Now, I might believe that in the beginning, when this new technology was introduced to controllers, that they would want to gain some confidence in it over the first year or 2. But I would certainly hope that at the end of 21 years, which was as long as the TSC study went—it went from 1999 to 2020. At the year 2020 I should hope that the FAA controllers were using user-preferred routes more than 60 percent of the time.

Now, the difference that that makes is important because it is not a $200 million a year savings then, it is $250 million a savings. So, I think the study was too conservative.

I also think that there might—I could argue some benefits certainly less than 500 miles. But I think they took some advice from the FAA and decided to use 500 or more.

But in any event, even quibbling with the points that I made, Mr. Chairman, I think there is a lot of money to be saved in having the FAA start on AERA right now so that we, and the air carriers, and the passengers can get those benefits as soon as possible.

TREATMENT OF USER BENEFITS BY VOLPE CENTER

Senator LAUTENBERG. The Volpe Center did not quantify a number of AAS user benefits, one of them safety, not on the controller productivity increases. Again, safety not quantified based on controller performance increases. On the other hand, passenger time savings are quantified.

Are you satisfied with the Volpe Center's treatment of user benefits? Do you think that they have established their credibility in determining this?

Mr. RYAN. I am satisfied with how they went about it. I am just not satisfied with some of the parameters they use, and I will mention another one. They use $1,650 an hour, $1,652 an hour for fuel and crew savings, and it is more in the neighborhood of $2,000. Now, that is another 20 percent increase on the $200 million.

My personal comment on the passenger is that I think it is kind of high if you estimate every passenger at $42 an hour, including everybody going to Disney World or wherever. I think passengers numbers may be a little high.

Senator LAUTENBERG. It costs the parents a lot, though. The aggravation.

Mr. Boyer, what do you think of the Volpe Center's treatment?

Mr. BOYER. Well, excellent. I think it concentrates, of course, on the airline, and the advantage of the project for general aviation is just smoother handling within the system when we use the system. Remember, a lot of our flights are not using an instrument system. We go from point A to point B with loran or GPS or the present nav-aids. And when we do use the system, there will be smoother handling and we will reap some of the benefits, although our fuel savings and our crew costs are not at the level of the airlines.

Senator LAUTENBERG. Hold up that GPS unit. I like gadgets and this one is particularly useful. I use it when I start my car in the morning, and then I have to lay out all the charts. That will give you a longitude, latitude, or what are the other marks?

Mr. BOYER. Worldwide data base of all the airports is in here.

Senator LAUTENBERG. Incredible. And it reads from, what, three satellites?

Mr. BOYER. It will go up to—I think this one is six or eight.

Senator LAUTENBERG. It is just a wonderful, wonderful thing. Do you need a chart to lay it out? The one that I originally acquired had to be accompanied by a chart.

Mr. BOYER. No; not at all. As a matter of fact, the new breed, and this one is included. If we wanted to go to Washington National from here, we would just push in the letters with these buttons, D C A, and that instantly gives us.

Senator LAUTENBERG. You get the course.

Mr. BOYER. Right.

Senator LAUTENBERG. It is wonderful stuff. I like it. Sometimes I feel like I could use it around the halls here.

Mr. BOYER. Underground at least.

SATELLITE TECHNOLOGY

Senator LAUTENBERG. Mr. Boyer, what is the perspective of the aircraft operators and pilots, on the pace with which FAA is pursuing satellite technology?

Mr. BOYER. Well, as I say, I think it was a 1980's one answer and a 1990's different answer. In the last 1½ years, FAA has embraced this technology as rapidly as we have. When we first produced a report for you in Congress in 1990, January it was, called "The Future Is Now," we were laughed at by the trade publications and a few others who said it will never be. As a matter of fact, they said if AOPA has its way this technology will cost $12,500, and that is in the January 1990 issue of one of our leading magazines.

So I think because of the FAA's encouragement, that tape you saw of the demonstration of the approach program, that we have come a long way. And it may be, for once, the FAA is going to certify these overlaid approaches before private industry and the manufacturers have certified the boxes, and that is a rarity.

Senator LAUTENBERG. I have some other questions I will submit in writing, and now turn to my colleague, Senator Domenici.

Senator DOMENICI. I have no questions of this panel. Why do you not continue.

Senator LAUTENBERG. OK. Well with that, we will excuse you. We want to hear from Mr. Del Balzo. And I may have to run out.

So Joe, if you would come up please.

And thank you both very much.

[Pause.]

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF JOSEPH M. DEL BALZO, ACTING ADMINISTRATOR

ACCOMPANIED BY:

MONTE BELGER, ACTING DEPUTY ADMINISTRATOR
JOHN BURT, EXECUTIVE DIRECTOR, SYSTEM DEVELOPMENT
QUENTIN TAYLOR, ACTING ASSISTANT ADMINISTRATOR, AIRPORTS
THOMAS ACCARDI, DIRECTOR, FLIGHT STANDARDS SERVICE

INTRODUCTION OF WITNESS

Senator LAUTENBERG. Thank you very much, Mr. Del Balzo, for joining us at this time. We are anxious to hear from you. You have already had a prelude to what might be coming, so I would say, probably unnecessarily, brace yourself and let us go.

STATEMENT OF MR. DEL BALZO

Mr. DEL BALZO. Mr. Chairman, thank you, and Senator, thank you. I think—I am not sure, I will revisit that when we are done.

Mr. Chairman, you and I met last evening and I had a chance to reflect on our conversation, so with your agreement I would propose to submit a formal statement for the record and focus on what I think the real intent of this appropriation hearing is today and make a very few focused comments primarily on procurement and acquisition.

I do not think there is any question that our industry is in trouble today. You hear that all the time. And, Mr. Chairman, I would say that you are right overall, that traffic delays do cost our air carriers a significant amount of money every year. You heard today from ATA that that number could be anywhere up to $3 billion a year.

And I also believe that if trends continue, these costs will go up another 50 percent in the next 10 years. So I do not think there is any question that we have got to step up the pace of our air traffic control system modernization program, and our capital investment plan is intended to do just that. We have got to get on with it.

Senator D'Amato is not here, but tell him for me that I got the message. We do need two things. I think we need sustained consistent funding, to be sure. But more important than that I think you are right, again, when you say that we need to reform our procurement processes so that we can gain the benefits of new technology much more quickly.

I would be the last one to deny that progress on some of our key programs has been painfully slow. The delays in the Advanced Automation System [AAS] that we have talked about this afternoon have been especially frustrating—frustrating for you, frustrating for us. Because once we get the system installed, we know that we can begin to add on so many new functions that will allow us to make gains in capacity and efficiency.

I think it is important, if we can take a little bit of time, to understand why the delays. You know, what happened to us in this program. I think a lot of it stems from too many changes in system requirements. We did that. Nobody else did it, we did it.

We talk about how complicated it is to develop over 1½ million lines of computer code. It is, but I believe that the main causes for our delays were probably threefold. Changing system requirements, we take responsibility for that. Not as good a management system in place as we could have had; we take responsibility for that.

I think those are two of the three. The third one is the program was simply too big. If we had it to do again, we would do it differently. We would downsize it, we would do it in smaller increments, we would not try to take it all on at one time.

I think we have learned a lot. Two months ago we organized an industry group made up of the airlines, the trade associations, airports, and AOPA. We spent a day asking them to help us out, critique the program, look at the program top to bottom and tell us what they think. We also did that with our contractor, IBM. I think with their help we have gotten this program back on track.

One of the lessons that we learned from our experience with AAS is that we have got to change the way that we acquire and manage large procurements. We are frustrated by the length of time it takes to implement a large, highly visible acquisition program like AAS. We could tell you that the reason that it takes so long is because of the Federal procurement regulations. We could tell you it has to do with funding limitations. We could tell you that it has to do with oversight. I would tell you, frankly, that the main reason is our own inflexible ways of the past. We have got to find new ways of doing business because yesterday's ways do not work anymore.

We have handicapped ourselves even more by the way we have chosen to acquire new technology, and you heard that from Mr. Ryan today. We have been criticized by GAO, we have been criticized by Congress, and we have been criticized by this committee for the cost increases and for the delays. I think we have accepted those criticisms and, in fact, have implemented several reforms. GAO acknowledged today that we made a number of important improvements, but the fact is we still encounter delays and we still encounter cost growth. It is a high priority.

So here are some of the things that we have done. I hope what the world has seen over the past few months is personal involvement by an Acting Administrator, an Acting Deputy Administrator, Executive Directors, and Associate Administrators. I think what GAO has certainly seen is our attention to mission needs statements with quantified data, talking with the industry in roundtables, sending industry draft procurement requests for their comment, major new acquisition policy directives, new orders creating configuration control, and putting teams in place working to still refine the requirements.

All of that, in addition to innovative techniques which include, making greater use of a procurement strategy we call fast prototyping. The acquisition process we have today will not allow us to hold on even to the trailing edge of technology. There is so much technology that has just exploded on us during the past 2 years. You heard about it today: satellite technology. And Mr. Boyer is right, we have got to do it better. We have got to do it faster, and we need to do it more aggressively than we ever contemplated. I think we are doing that. You heard that from him, and it is hard for us to overrate the importance.

There are some cornerstone projects that are important to us. GPS is critical. The Advanced Automation System is critical. Datalink is critical. We need more money for Datalink, you have heard that today, and our fiscal year 1994 budget request provides for that.

I think you heard from GAO that we have established some very ambitious goals for our National Airspace System. We have a goal to reduce weather-related delays by 15 percent. We have a goal to ensure that capacity needs will be met. We have a goal to provide more user-preferred routes, to reduce runway incursions, and all of those goals are reflected as high priorities in our fiscal year 1994 budget. When you look at the pieces in the fiscal year 1994 budget, they all fit together into an integrated whole.

You know, one of the things you heard from the carriers today, you heard from Mr. Ryan, was how important the user benefit from AAS is in terms of an advanced en route automation capability. He talked about $200 million a year. I agree with him. I think that is conservative. But the point is we have got to focus on implementing it as fast as we can. There are so many things that we have built into the 1994 budget request, and as we develop these software and hardware enhancements all of them become part of and tack onto the Advanced Automation System program.

I think the goals that we have for our National Airspace System are goals that this committee can sign up for. I think it is going to take two crucial elements if we are going to be successful, and here they are: Consistent funding, and I think that is a challenge for this committee; but the second is the timely implementation of technology, and clearly that is a challenge for us. Both are critical as we are going to meet the demands for air traffic control in the 21st century.

And I would be pleased to answer any questions that you may have and, with my colleagues. We will be as candid with you as we can possibly be.

Thank you.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Del Balzo. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF JOSEPH M. DEL BALZO

Mr. Chairman, I am pleased to appear before you today to present our budget request for fiscal year 1994 and to discuss our air traffic control modernization program. I want to thank you and the other members of this committee for your continued support for and interest in FAA's programs.

The President's budget requests a total of $9.2 billion in budget and obligation authority for the FAA—a 3.5 percent increase over our fiscal year 1993 enacted level. The request provides for the continued safe and efficient operation of the National Airspace System (NAS), modernization of the air traffic control infrastructure, and continued aviation Research and Development.

Today, I would like to focus on our Facilities and Equipment (F&E) program. The fiscal year 1994 request for F&E is $2.524 billion, a 7.4 percent increase over fiscal year 1993 enacted funding. The request supports projects contained in our Capital Investment Plan (CIP) to modernize NAS equipment and facilities. Our program balances the need to maintain the current system while taking advantage of technological opportunities to improve safety and system capacity.

I would also like to focus on several critical areas of our modernization efforts—the Advanced Automation System (AAS); our recent decision on a limited consolidation of air traffic facilities; the technological and capacity opportunities of satellite navigation; and, our steady progress in acquisition program improvements.

The AAS program is the cornerstone of the FAA's CIP. Awarded in 1988, the AAS was, at that time, the largest automation contract ever in the civil sector. AAS will provide the capacity to handle projected air traffic loads well into the 21st century. It also offers increased productivity and safety benefits, increased reliability, and the adaptability to take advantage of new capabilities offered by satellite technology.

There are several segments to the AAS program. The first segment, the Peripheral Adapter Module Replace Item (PAMRI), provides for increased data communication capability and radar inputs at our En Route centers. In February of this year, we successfully completed the implementation of PAMRI in our Air Route Traffic Control centers.

The second segment of AAS is the Initial Sector Suite System (ISSS). The ISSS will introduce new work stations or "sector suites" into our En Route centers, replacing equipment which is over 20 years old. The sector suite configuration, along with communications improvements, will enable us to reconfigure airspace within a center to respond to staffing or workload requirements. The ISSS portion of the AAS program provides the needed platform for the subsequent achievement of a variety of user benefits that are offered by the other elements of the AAS program.

We have had problems with ISSS—delays in the program due to significant software development and testing problems, as well as FAA changes in requirements. FAA and IBM have taken major steps to change the way we have previously managed the AAS program to avoid these problems in the future.

Remaining elements of the overall program include: the Terminal Advanced Automation System (TAAS)—new equipment and software for the terminal environment; the Tower Control Computer Complex—new software and selected hardware upgrades for airport control tower operations; the Advanced Computer Complex—new software and selected hardware upgrades for en route air traffic operations; and the Automated En Route Air Traffic Control (AERA) to facilitate fuel savings and provide conflict resolution in the en route air traffic environment.

Let me finish with AAS by discussing our plans for the near-term. ISSS development will continue with much of the system beginning test at the FAA Technical Center—laying the foundation for the AAS program. The TAAS will continue development for use in the Consolidated Metroplex Control Facilities. We plan to study the early implementation of AERA in an effort to achieve benefits to the airway users sooner.

Another subject that I would like to discuss this morning is the agency's plan for consolidation of terminal air traffic control facilities. As you may be aware, the FAA has recently adopted a limited consolidation strategy for upgrading the Terminal Radar Approach Control (TRACON). At the inception of the FAA's plan to modernize the air traffic control system, technology required that we bring our employees together into large facilities to gain the benefits of automation. So, in 1983, our proposed strategy was to consolidate all TRACON's into 23 locations. These new facilities, called area control facilities, were to be co-located with the 22 En Route centers and the New York TRACON.

Over time, we became concerned that these 23 very large facilities would be unsuitable for the safe and efficient operation of the system. In addition, technology progressed to a point where we could take the automation to our employees and still get the benefits we desired. When consolidation was envisioned, this strategy was not feasible at a reasonable cost.

Our new consolidation strategy for TRACON's supports consolidation only in those locations where it makes operational and/or economic sense. Some locations for the new Metroplex Control Facility have been identified already, like New York and Southern California. For other locations, consolidation may make sense. Each will be justified operationally and economically. Most of our existing TRACON's will be modernized with new equipment. We have a lot of work to do to implement this strategy. We are refining the methodology to determine future consolidations, as well as developing the operational requirement and identifying the system for the TRACON modernization.

We are including our initial estimate of Limited Consolidation as we prepare a new Capital Investment Plan (CIP) for fiscal year 1995. The impact amounts to about $1.2 billion increase through the year 2000. The total CIP estimate is now near $34.0 billion through the year 2000. Although the FAA has experienced cost increases and schedule delays which have contributed to growth in the CIP, the majority of the increases result from additional systems and new capabilities necessary to meet air traffic capacity and safety requirements and maintain the current NAS infrastructure. Since 1982 we have completed 46 projects and plan to deliver 24 more by the end of 1994.

We do not believe it is realistic to assume there will be an end point to the FAA's modernization. Each year the CIP looks one year further into the future. The fiscal year 1995 CIP will estimate costs through the year 2002. The CIP is intended as a dynamic plan which can be adjusted to meet agency needs and to take advantage of new technology.

For example, an area that has received much recent attention is potential applications of the Global Positioning System (GPS). Today, you can determine your position with great accuracy anywhere on the earth using a receiver not much larger than a paperback book. The implications of using satellite based technology are enormous in areas from navigation to surveillance, and the FAA is aggressively moving towards taking advantage of these opportunities as soon as possible. For example, the satellite based Automatic Dependent Surveillance system will allow more efficient control and routing of international flights, providing large fuel savings to the airlines.

The potential for precision approaches and landing capabilities has led the FAA to reassess its strategy for procurement of precision landing aids. Because we are just a few years from achieving Category (CAT) I GPS landing capability, the FAA now plans to end procurement of CAT I instrument landing systems (ILS) after 1995, except for replacement systems. In fact, FAA's fiscal year 1994 budget only requests CAT I (ILS) establishments for sites previously identified. For CAT II/III Precision Approaches, we will make a decision on production of Microwave Landing System in 1995. This decision will be dependent on the results of feasibility studies on CAT II/III GPS.

At this time, I would like to respond to continued concerns expressed about the FAA's acquisition program by telling you about improvements we have made in recent years. Starting in 1992, FAA required that all new major acquisition programs be justified by means of a mission need statement before they can be included in our budget submission. An Acquisition Review Committee (ARC) composed of high level FAA officials was established to review and approve these candidate programs. The progress of approved programs is reviewed by the ARC and approval is required before programs move beyond Key Decision Points. In addition, a major new acquisition policy directive has been issued which details required documentation, activities, responsibilities, and approval levels from original analysis of a mission need to approval of full production, all in accordance with the Circular A–109 process directed by the Office of Management and Budget.

While supportive of our acquisition process improvements, the General Accounting Office's criticism of our need for more quantitative data for mission need statements is on target. We are aggressively moving toward improving our mission need statements.

Before closing, I would like to comment about the FAA work force. On a typical day, the FAA will handle 168,000 aircraft operations and provide over 110,000 flight services to general aviation pilots. We will perform 800 safety inspections, 82 security inspections, and 14 safety seminars. To guarantee the high level of performance and reliability that are demanded in the U.S. air transportation system, airway systems specialists will maintain and monitor an infrastructure consisting of some 28,000 hardware and software systems.

I want to emphasize how critical our operating budget is to the success of our capital modernization program. There are few work forces anywhere in the federal government who carry a greater day-to-day responsibility than do the men and women of the FAA. They have set demanding standards of professionalism, which are unsurpassed anywhere in the world of aviation.

HIGHLIGHTS OF THE FAA BUDGET FOR FISCAL YEAR 1994

OPERATIONS

The FAA request for Operations places continued emphasis on safety, security, and efficiency of the National Airspace System. For fiscal year 1994, the Operations appropriation requests $4.576 billion. This is an increase of 0.8 percent or $38 million over the fiscal year 1993 level. This request supports the day-to-day resources necessary to maintain the facilities and support the men and women responsible for keeping our system operating. In line with the President's Economic Plan, we have carefully targeted some reductions in our work forces and in our administrative spending. Despite these reductions, we believe our request includes sufficient resources to support the current operating level of the NAS.

As part of our Operations appropriations request, we also recommend certain cost-cutting measures such as early termination of the Pay Demonstration project and discontinuance of the subsidy for the Direct User Access Terminal (DUAT) service. The Pay Demonstration project was scheduled to end in June 1994, but will now end 9 months early in September 1993. Our demonstration to entice pilots to use the DUAT service for weather briefing and flight plan filing has served its introductory purposes. Similar commercial on-line services exist and the toll free 800 service will be retained. These reductions will help defray increased expenses associated with inflation, non-discretionary pay increases, and other mandatory costs of operating and maintaining new systems, particularly expenses associated with the provision of maintenance and supply support to new systems that were fielded and commissioned in previous years.

FACILITIES AND EQUIPMENT (F&E)

To support projects that modernize and improve the National Airspace System (NAS), $2.524 billion is requested for the F&E program in fiscal year 1994. The fiscal year 1994 F&E request a 7.4 percent increase over the fiscal year 1993 enacted funding. The budget supports implementation of the Capital Investment Plan to provide new facilities with modern equipment capable of handling the volume of air traffic predicted for the 1990's and beyond. It represents the financial commitment necessary to achieve the cost-saving benefits so important to our system users.

RESEARCH, ENGINEERING, AND DEVELOPMENT (R,E&D)

Our fiscal year 1994 request for the R,E&D appropriation is $250 million, an 8.7 percent increase over the fiscal year 1993 enacted level. It funds the development work of many of the projects which I have just described. We will continue to work aggressively on joint ventures with industry, other government agencies, and the international community on the development and implementation of new air traffic control system capabilities.

Among the major efforts in the R,E&D program are system capacity, satellite navigation, advanced air traffic control technology, aging aircraft, automation enhancements, airport security, and a strengthened focus on human factors. A vigorous R,E&D program is critical to conceiving and developing new technologies that will provide the foundation for further improvements in safety and efficiency in our air transportation system.

GRANTS-IN-AID FOR AIRPORTS

An obligation limitation of $1.879 billion is requested for the Grants-in-Aid for Airports. This amount is a 4 percent increase over the fiscal year 1993 level of $1.8 billion and recognizes the continued need for investment in our nation's airport infrastructure. Reauthorization legislation for Airport Grants is required for fiscal year 1994 and will be forwarded shortly.

TRUST FUND

Funding levels in fiscal year 1994 assume 75 percent trust fund financing for the FAA programs.

That completes my prepared statement. I would be pleased to respond to questions you may have at this time.

A–109 PROCUREMENT PROCEDURES

Senator LAUTENBERG. We are encouraged by hearing some of the critics, GAO in particular as well as the users, talk about a perceptible change in direction and policy. I think that is very good. We had our little chat yesterday and that was a good opportunity for us to air some things that might produce some questions for the record.

I do not like to spend a lot of time finger pointing, so I will ask you these questions with the purpose of learning where we go from here in order to avoid some of the pitfalls that befell us on the way things were done before. Now, it is very obvious, as we look at the hand-held GPS unit, that technology has cascaded around us.

I saw it in my own business background. I left my company 10 years ago and went back a few years later and walked into the computer room, the giant one of many that we have. I was stunned to see how much empty space there was in this very crowded computer room. I talked to the manager of that office and I said my God, what happened to business here. Have we lost that much business in these few years since the leader of the company left? And he said, no, we are doing *x* percent more than we did, but compaction, throughput, improvements have been so enormous.

When you look at that little GPS unit and recognize that if you set your destination, that unit plots your course within feet. You are going to know exactly where you have got to be going. I think you said altitude, as well in there. Obviously, you ought to be able to get that.

Some of that has, of necessity, reduced scope requirements. This is what you would call the program being maybe too big and too complex. You can only do that with hindsight because who knew what was coming down the line, and as rapidly as it did.

Nevertheless, what caused FAA to avoid even the basic procedures, the A–109 procedures for procurement? Because that was not a part of the process at FAA. Can you explain why that was not part, or at least subject to GAO's criticism, of a routine program when procurement was being done?

Mr. DEL BALZO. No, I cannot. I cannot explain why it was not institutionalized much sooner than it has been. What I can tell you is that we first started placing emphasis on acquisition reform with the arrival of Administrator Busey and Executive Director John Burt, reemphasized with Mr. Belger taking over as Executive Director for Acquisition and Safety Oversight. I would ask both Mr. Burt and Mr. Belger to talk about what it is that we have done. I cannot apologize for the past. What we can do is talk about the future.

Senator LAUTENBERG. Apology is not necessary. What happened unfortunately happened. There is no way of recovering either the time or the funds that were spent neither of which have helped us. There is a learning experience that is worth something. I do not know whether it is worth $3 or $5 billion. Can we just get some indication of why it was? Was it simply, "to the devil with it, we are not interested in those procedures?" Was it in some cases occasioned by turnover in the top spot? It has always been my belief, almost like ambassadorial posts, that there is a professional staff that remains constant through changes in administration.

What do either of you have to say? Anyone who wants to talk to the subject, please do.

Mr. DEL BALZO. Senator, I would add one point before I would ask my colleagues to respond. I think we have to remember that when we got into the major system acquisition business in 1982, we were running a Capital Investment Program on the order of $200 million a year. There was no need for us to really institutionalize a regimented acquisition procedure. I think we began to feel uncomfortable with the lack of institutionalization as we became more and more conversant with the needs of large-scale acquisitions that we were just not conversant with. I think it snuck up on us, and I think that is one of the reasons. I would ask both Mr. Burt and Mr. Belger to offer their opinions.

Mr. BELGER. I will start, Mr. Chairman. I think you almost have to answer that question in the sense of an opinion, since you are looking at history. I think, just to pick up on what Mr. Del Balzo was saying, in the early eighties the FAA knew nothing about major acquisitions. We are talking about an F&E Program of $250 million. We were naive. We were not at all sophisticated in the ways of going about procuring major systems. Then we got caught up in the NAS plan, I think, which you know, did not go through a mission need statement process to justify those requirements. It was sort of one day we have a NAS plan and we have got a decision and this is the way we are going to go. For years that was the way the FAA went, consistent with that NAS plan. We never went back to validate a lot of those needs. It was just sort of that is the NAS plan, that is where we are going.

In the mid to late eighties we started signing production contracts for most of these systems which are now delayed as the GAO focuses on, and rightfully so. That is when I think it really started catching up with us. We started to get to a production stage and we found out that we did not have good requirements; that they were not truly understood by us or the contractor; and that folks were starting to produce things that maybe really would not work in the real world. I think that is when we really focused on the discipline. I think Admiral Busey brought it home. I think as you heard from the GAO, we are doing the right things now. So that is my answer for the history.

FAA'S ACQUISITION PROCESS

Senator LAUTENBERG. Mr. Burt, do you have a comment?

Mr. BURT. Yes, sir; I would be happy to make some observations. I came to the FAA about 3½ years ago, and my express tasking was to provide advice on how to improve the procurement process. What I found was a lack of three things really in the way FAA managed programs.

First was a lack of focus. It was not obvious who was in charge of individual programs, and many times that left outsiders, a contractor or whomever, in the position of being able to integrate the FAA's planning and therefore to drive the program to their advantage rather than to the Government's. The second thing has already been discussed at some length this afternoon. I would call that a lack of discipline in that there was not a clear methodology for program management and execution at the FAA. It is not fair to say that the FAA had ignored OMB circular A–109, however, because, in fact, they had embraced A–109 in the early eighties and had decided to work it in a two-phase approach rather than the five-step approach that was outlined by GAO earlier. We have changed that. We believe that A–109 is substantially correct in its philosophical approach to program management, and we have that instituted. We use that process today at FAA. The third thing, however, is that A–109 should not be taken, nor should any process be taken as a rigid cookbook that you must go through step by step for every project, regardless of size or maturity. And so we need to streamline the projects. We need to understand what the rules are, what the methodologies are, and then tailor them to the instant project so that we get the most bang for the buck out of that.

I believe that we in the FAA have made major strides in instituting strong chartered program managers who have access directly to the Administrator, although they work administratively in my organization, and a strong matrix of experts in many other fields who support those program managers directly on their teams to ensure that programs get into the field. We are streamlining our new orders and instructions to ensure that we do those steps that are necessary for effective program management, and we do not do those steps that lead to bureaucratic waste and delay.

I might also say that we were faced, as we made the changes, with three classes of programs that we needed to deal with. There were the old programs that were nearing completion that have been done under the old system that required a lot of work and a lot of effort to clean up and get out the door.

Perhaps the best example that is often pointed out as a bad program is the Mode Selector [Mode S] Program in which I would say that the schedule is slipping faster than the calendar was moving for some of the years of its program. In the spring of 1990, the FAA restructured that program, the contractor restructured on his side. We put in strong program management. We put in value-earned management structures, and that program is in testing and being fielded in the field today. It has kept up with the schedule that was laid out 3 years ago and is now one of our success stories.

A program that had not been put under contract yet, one of the few of the final contracts, the Tower Communications System which has been alluded to earlier today as a problem program, was stopped before it went to contract because it was clearly an overspecified expensive program focused on 247 small- and medium-sized towers and TRACONS. It was going to cost $151 million and probably lead to cost overruns and delays because of the magnitude of the requirements documents that went with it. We structured that program entirely. We are buying systems off the shelf and installing them already, even though this has been less than 3 years since we restructured and the total cost of that program will be something under $100 million now, and we will be on the schedule that we have forecast. Those are some of the examples of what we found and what we have done, sir.

MISSION NEEDS STATEMENTS

Senator LAUTENBERG. There is a lot of room for improvement as indicated by the fact that it is being given thought and you are looking at it and being fairly precise in what you are saying has to be done.

One thing that must be done is to inquire whether or not the mission statements can be more clearly drawn now than they were, because that is what starts the ball game into extra innings right away. What steps has FAA taken to address the criticisms by GAO on mission needs statements? Are you in a position now to be able to say to this subcommittee that the steps presently in place will permit you to meet your benchmarks and will have frequent reporting on it so that everybody can take a clear look at where we are going?

Mr. DEL BALZO. In spite of advice that has always been given, you never say never, I will tell you today that there will never again, with the systems that we have in place, be a mission needs statement that does not measure up to the tightest scrutiny the GAO would like to apply. It has been institutionalized. It will never happen again.

Senator LAUTENBERG. I assume that you saw the paper this morning.

Mr. DEL BALZO. Yes, sir.

Senator LAUTENBERG. With the legislation that establishes performance measure requirements that certainly conforms to our conversation about mission, about supervision, et cetera. As I said, where are we going, and how do we get there?

One of the things that is being suggested is to see if you have any of the programs in the works that could qualify for this performance standard test or description. That we know we can start to look at FAA's bevy of things and say, "OK, here we volunteer one or two to be subject to this yardstick."

Mr. DEL BALZO. Mr. Chairman, I would love us to volunteer several programs that you can scrutinize that way. Rather than make them up today I would like to get back to you with something that we have thought through, and we will do that in a very short period of time.

[The information follows:]

The FAA has reviewed the provisions of S. 20, Government Performance and Results Act. We have also already discussed this informally with staff from the Office of Management and Budget who are in the process of developing guidelines for implementation of this legislation promptly upon its enactment. One of the outcomes will be a closer linkage between the agency's Strategic Plan and our budget process. We will be updating our Strategic Plan later this year. As part of the performance based programs, we are considering one or more program initiatives in our systems maintenance program where we believe that greater flexibility in managing our staffing levels and equipment maintenance support contract dollars should allow us to improve the productivity of the way in which we maintain our air traffic control equipment. Once we work out the details later this year, we will advise the committee of the specific approach that we have worked out.

SYSTEM PERFORMANCE

Senator LAUTENBERG. I have a number of questions. I appreciate that. Unfortunately, you are here representing the FAA, and therefore the buck stops, in some way or another, at your desk. This is not intended to reflect any lack of confidence in the performance by you folks here, but the fact here is that it has been there.

Joe Del Balzo, you are a seasoned person, a seasoned executive with FAA, and many questions arise about what happened, so as we ask you to respond to them, it is in the generic sense.

It is shocking to me to look at something so large and so important and not think of all of the dangers. Is it a coincidence? What is it? We have the best safety record among aviation-serious countries in the world. I mean, the amount of travel, the amount of movements that go on, it is really remarkable the number of people that are in the air both in general aviation, obviously commercial and otherwise. It is quite fantastic.

When an accident happens, it is very painful because suddenly we see it. If it is one's family or one's friends or otherwise, it hurts. It is a very, very safe system. Can it be made safer? Yes. You said that you could improve performance and that performance with weather delays could be substantially improved. I hope so, because it has taken me too long to get here from there, but we will submit further questions for the record.

I would now like to ask Senator Domenici to take over. He has got some questions. When you are finished, Senator, if you would, just close shop.

Senator DOMENICI. Is this the last panel?

Senator LAUTENBERG. Yes.

Senator DOMENICI. I will be glad to. Thank you, Mr. Chairman. Do you have to go to the floor?

Senator LAUTENBERG. Yes, I do.

Mr. DEL BALZO. Mr. Chairman, thank you.

USE OF OTHER FEDERAL AGENCIES EXPERTISE

Senator DOMENICI. Mr. Chairman, I was going to raise an issue in your presence. You know, I am continually amazed how apparently the Federal Government's major agencies fail to utilize the expertise that might be somewhere else in the Government. Let me just give you an example.

I would just almost bet and give overwhelming odds that you have not in the major renovation of the FAA system asked somebody like Lawrence Livermore or Sandia National Laboratories or Los Alamos or Oak Ridge National Laboratories to look at the whole problem with you in terms of its large size and to try to help you make sense out of it. Am I right or am I wrong? I hope I am wrong.

Mr. DEL BALZO. Senator, keep going, because I think you would lose that bet. There is not a name that you have mentioned that we have not involved over the past couple of years.

Senator DOMENICI. All right, then, I am glad I did not bet. I have found it very interesting, for example, that we had the Department of Energy trying to do something and the Environmental Protection Agency trying to do something similar, and it is only last year that they started talking to each other. One regulates the other. It was sort of as if they were enemies in polar regions.

Mr. DEL BALZO. What I would say is, if you had offered to make that bet 2 years ago you would probably have won. You would have won.

ASR–9 AT ROSWELL, NM

Senator DOMENICI. All right. Let me tell you that I have a couple of complaints. I will leave the big issue of procurement and what went wrong to the record as it has thus been prepared and to the ranking member and the chairman. Let me talk with you for a minute, Mr. Del Balzo, about the kind of treatment my office has gotten from the FAA regarding an issue in my State. I hope you know nothing about it, because from my standpoint it is almost an insult.

So let me talk for a minute about the city of Roswell, NM, and various interest groups that have been examining the optimum operational arrangement for the ASR–9 radar service at that airport. Currently, there are three options, stand-alone radar in Roswell itself, remote it to Albuquerque, or remote it to Lubbock.

The establishment of the radar coverage at this industrial air center is of very important and significant interest, because that former military base, former being 20 years ago, is developing into a huge economic and industrial center in that part of the United States. In fact, many foreign airlines train their pilots there on Boeing 747 aircraft and the like. The Japanese, the Germans, they all go there and train. That is just one of the things.

I am very concerned that I have been unable to get accurate and reliable information from your organization on this issue. Let me just recap. In January of this year, FAA officials provided information on the technical feasibilities of various options, which subsequently was refuted by both air traffic technicians and the manufacturers of the equipment.

On January 29 I sent a letter to the FAA Acting Administrator, to you, Mr. Del Balzo, asking for an explanation of the shortcomings in the FAA information provided earlier in the month and raising several questions.

To date, despite several phone calls by my staff to FAA contacts, I regret to say that I still have not had the courtesy of a response or a telephone interview with anybody that claimed they knew the answers to my questions. So today let me try to get some information on this topic.

Again, this is not a macro issue, but it might very well be part of what is wrong at the FAA, if other things are not getting done as you hope they are.

There have been several concerns raised about the safety implications of remoting radar services to hub locations, particularly the vulnerability of transmission lines to outages, and lack of familiarity and responsiveness to remote operators with local conditions.

My understanding is that there have recently been several breakdowns in transmission lines which have stopped radar coverage at other remote locations for extended periods of time. Has the FAA examined these safety issues thus far?

Mr. DEL BALZO. Senator, let me respond to the first part of your statement and then address your question. I wish I could tell you that I did not know anything about it. I do. I am embarrassed by it, and I personally apologize today. I owe you a personal explanation which I will offer to do with you, and I commit to us not making a decision on this issue until we have had a chance to talk about it in detail.

ASR–9 AT ROSWELL, NM

Senator DOMENICI. First, I want the record to reflect that I am not one who is going to try to tell you how to handle technical business, but I think we have confusion that you ought to clear up for us at the minimum.

Mr. DEL BALZO. I agree.

Senator DOMENICI. And maybe beyond that.

Mr. DEL BALZO. I agree with you. As you know, there are three alternatives to what we do with the radar data from the radar that we will be installing. We can use it in a stand-alone facility and we have concluded that we could remote it either to Albuquerque or to Lubbock.

The first analysis that we did concluded that it would be most cost-effective to remote it to Lubbock. We are still reviewing that, and before we make a decision I commit to talking with you personally. We have not made a decision.

Senator DOMENICI. Well, let me just tell you on that point, one of the reasons I am a bit perturbed is that the first justification given by FAA for the stand-alone in Lubbock was untrue. It was stated that the technical nature of the equipment mandated that it be there, and frankly I would have been a big, big sucker and believed you and told Roswell whatever you have learned is wrong, and the FAA is right, but somebody from my staff was wise enough to go ask some air traffic controllers about the equipment. They sort of chuckled and said, "Who would say that it must be in Lubbock when it could be in Albuquerque, and there are even stand-alone qualities as far as the equipment itself. It does not have to be in Lubbock."

So I want you to know that, and I wrote you that in a letter and asked, why they did not have the facts, or what were they trying to do? I thought it was to keep work in Lubbock, actually, that they want to keep the personnel base in Lubbock. I thought that was the reason for the answer, Mr. Chairman, but if it is not, maybe we ought to get on nonetheless to the next issue. Go ahead.

Mr. DEL BALZO. Please, just let me look into it, and I will get back to you.

Senator DOMENICI. OK.

I have five specifics about the Roswell radar issue that I am going to submit, one follows the other in terms of if you did this why did you do that, and I am not going to burden you with them today. You obviously would not have the specifics, but I hope you get them to the committee, not to me, as soon as possible.

Mr. DEL BALZO. Yes, sir.

AGING AIRCRAFT INSPECTION CENTER

Senator DOMENICI. As we talk about airlines in the United States and this very, very major part of our economy and lifestyle that is being supplied by air transportation, let me tell you one of the most exciting things that is happening which happens to be going on in my State. That is, the aging aircraft nondestructive inspection development center with Sandia National Laboratories, the FAA, a university, private industry, and almost all of the private sector aviation companies becoming involved.

Mr. Chairman, I am not sure, even with your great involvement in airline activities because of your work on this subcommittee, that you would know when an American airline has to go have their Boeing 727 looked over in its entirety, the engines and everything else. As of right now, they must visually examine every rivet. Think of that.

There is no scientific way to take a whole, huge panel of rivets and examine them. There is a machine that looks at every rivet, and the eye looks at it to see that the rivet is OK. With today's noninvasive technology, that is absurd.

Not that they are not doing a good job. We will not know that until we find another technology. It is hard to believe that thousands and thousands of man-hours are going to very highly paid people to determine the strength of an airplane by visually looking at every one of those rivets.

Well, this kind of center is doing research on trying to find another way to do that, and I would predict if we fund them right and consistently enough for scientists and business to work together, we are going to find some way to look at entire panels of rivets like x rays.

That is a very simplistic approach, but I submitted the premise to them at the opening and they said, you are not far from wrong. There are ways to look inside the hull to see what has seeped in over the years by way of humidity and the like. Right now, we have to tear the plane halfway apart and look in visually. In fact, I saw one torn apart that way. They own one now. The center owns a Boeing 737. This center of yours bought one, and it is there, and they are taking it apart.

I am very concerned that we not turn the funding on and off for that. It needs multiyear funding, and frankly it is not a whole lot of money. Might I ask, whether you know if money to continue this cooperative collaborative center is in the budget or not? If so, how much?

Mr. DEL BALZO. Senator, it is in the budget, and we are as committed to stable funding over multiyears as you are. It is an important capability for us. It is a significant capability that we will be developing at the center that will have a long-term payoff to aviation safety, so you will find in the fiscal year 1994 budget a line item on the order of, I think it is $3 million, but I will verify that, and that will be a level of effort funding over a continual number of years, and we think that is pretty much the right level.

[The information follows:]

The fiscal year 1994 Congressional budget request does include $3 million for the Aging Aircraft Nondestructive Inspection Development Center with Sandia National Laboratory.

Senator DOMENICI. Have you conferred with the scientists who are doing this work for you at the development center to see if that is the right level?

Mr. DEL BALZO. That is being managed for us by personnel at our Technical Center in Atlantic City, NJ. I will ensure that that has been done. But I have not heard anything to the contrary.

ALBUQUERQUE INTERNATIONAL AIRPORT

Senator DOMENICI. One last question, again of a parochial nature. I think you know my State has a broad expanse of territory and limited major scheduled airline carrier service. Albuquerque is our only facility providing this type of service, and it has significant needs in the area of improvement projects. I am advised that the State is now prepared to provide $22 million as their match to FAA funds.

The International Airport at Albuquerque is desperately in need of finishing a project in 1993–94, $26 million, for completion of runways. Another two or three small communities have their airport improvement applications in, and I would just like to know while the funds are available to meet the 1993 requirements for a taxiway upgrade and these ancillary projects at the International Airport, do you anticipate any problem delivering the 1994 portion of the FAA funding?

Mr. DEL BALZO. Senator, I cannot answer that specifically. Quentin Taylor who is the Acting Associate Administrator for Airports, is with us today, and perhaps he can. Quentin.

FUNDING FOR ALBUQUERQUE INTERNATIONAL AIRPORT

Senator DOMENICI. Mr. Chairman, this is not essentially site-specific but rather sort of a generic question. Are the fiscal year 1993 funds to be followed immediately by fiscal year 1994 funds to finish projects? Do we expect money for those ongoing projects? I think that is a generic kind of question.

Mr. TAYLOR. Senator, the answer to the question is, "Yes." We expect Albuquerque this year, with the Military Airports Program, along with our customary Airport Improvement Program, to receive something on the order of $11 million to get on with that taxiway development. We expect to follow through in fiscal year 1994 at a level not quite what it is you might expect but we will get very, very close to it.

Senator DOMENICI. So, then, the budgets normally are saying if there is a 1994 completion to a 1993 appropriation, you are trying to provide money so there is no hiatus, so that you finish the projects.

Mr. TAYLOR. Yes, sir; we would not think in terms of leaving you high and dry.

Senator DOMENICI. Thank you. Thank you very much, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, Senator Domenici. It was interesting to hear your comments about the tedious and expensive process, as well as an unsatisfying review of each nut, bolt, and rivet. You said you saw the inside.

Senator DOMENICI. But thanks to you we are starting. You all started two of these, Senator.

IMPACT OF THE SMOKING BAN

Senator LAUTENBERG. One of the things that we have done, you and I, to help this is to curb smoking in airplanes. I think there was significant damage to the air handling systems that occurred as a result of smoking. Does anybody observe whether or not there has been a change, either in cost or functioning, of the air handling systems in airplanes since the smoking ban?

Mr. DEL BALZO. Mr. Accardi who is the head of our Flight Standards Organization may have something. Tom.

Mr. ACCARDI. Yes; good afternoon, Mr. Chairman. I would tell you that the outflow valves on aircraft, from my experience of being a pilot for some 20 years, tend to get very sticky from the nicotine. I would tell you that maintenance costs could be significantly reduced just on having to clean those outflow valves on a number of aircraft, and I think if you talked to the maintenance personnel in the airlines and in general aviation on pressurized aircraft, they would verify that.

Senator LAUTENBERG. I had heard that. I wanted to ask the question. You know, my staff runs in to every airplane that I get on and they say Lautenberg is the guy that stopped smoking in airplanes. Then they shower me with champagne and all that.

But we are so pleased with that because of the effects on health, crew health and passenger health. I think it is part of the reason that this antipathy toward smoking has begun to take over the country. People did not know how nice it was to be in a smoke-free environment until they started to see it in airplanes. Now, you have people complaining about others standing in line outside of places saying what the hell is that guy smoking for?

Anyway, I just wanted to see if there was any direct saving that we could point to.

Senator DOMENICI. When did the airplane smoking ban come into pass?

Senator LAUTENBERG. Three and one-half years ago, I would say. About 1989, we started with a 2-hour ban. Once that happened people were just thrilled. They were not going to let it roll back again and wanted to extend it to more and more places. Now in some of the other countries they are banning smoking within their borders. This leads me to believe that one of these days in the not-too-distant future we will start to see international flights eliminate smoking.

And I have spoken to crew personnel who say they do not want to take those overseas assignments because they do not want to stand in that smoke-filled cabin any more. It is very interesting. Anyway, I would just pat myself on the back.

Senator DOMENICI. It has been 2½ years since I quit.

Senator LAUTENBERG. Good for you. Good for you. He feels better, sounds better, and is not nearly as ornery as he used to be.

Senator DOMENICI. I will tell you, though, it is this President that energized me.

Senator LAUTENBERG. I am not going to get into that at the moment. So you want Albuquerque? [Laughter.]

MEASURABLE GOALS IN THE CIP

I am going to go on because the floor situation changed significantly and I have a little more time, much to your regret.

In testimony last year, GAO recommended that FAA include measurable goals in its CIP plan for modernizing the air traffic control system. GAO said such goals would allow decisionmakers in FAA and Congress to better determine the progress and accountability of the modernization effort. We spoke briefly about it, but I just wanted to be more specific.

As I recall, in the early years of the NAS plan, FAA established several broad quantitative goals, including goals aimed at reducing operational errors by air traffic controllers, increasing the overall productivity of the ATC system. Have you responded to the GAO recommendations yet in terms of what measurable overall goals have you accomplished for the CIP program?

Mr. DEL BALZO. Senator, we have, in the next addition of our Capital Investment Plan, which will be coming out before the end of this year, I think you heard GAO say today that we are not there yet, but we have made what I think is a good start in establishing quantifiable goals at the macro level.

There are two things that had to be done. We began at the macro level establishing quantifiable goals. I mentioned a couple of them: reduce the civil aviation fatality rate by at least 10 percent by the year 2000; reduce weather-related delays by 15 percent; and reduce airport runway incursions by 80 percent. We also need to establish more macro level goals similar to the ones I just described. But more importantly, we then have to go down to the program project level and start to partition the contributions that each one of those programs and projects will make to the macro goals.

We are probably another year from doing that, but there is no question that that is what we have to do. We need to point ourselves in the direction of developing some better what we would call investment-grade criteria so that we can evaluate the different investments that we propose to make as part of the Capital Investment Plan in terms of a world system impact. We have got a long way to go. We know where we want to go. I think we agree, and we have just got to work to get there.

Senator LAUTENBERG. Did you want to add something?

Mr. BURT. May I, Mr. Chairman, just give one example? Mr. Del Balzo mentioned a 10-percent reduction goal in civil aviation fatality rate. If you note from our chart here, you will see that from the mideighties to the present, that rate has been declining. I think that is the impact of much of the money that has been spent already on the plan. Systems such as new ILS's, new visual Navaids, new approach lighting systems, low-level wind-shear detection systems, automated surface weather observation systems, and we will continue with programs such as the DBITE equipment which is being installed in our towers, the ASR–9 radar which Senator Domenici mentioned, the long-range ARSR–4 radar, and TCAS in aircraft will continue to see drive down.

MODE C TRANSPONDERS

Senator LAUTENBERG. How about Mode C transponders? Have they helped at all?

Mr. BURT. Yes, sir; I believe that they are helping in our terminal areas.

Mr. DEL BALZO. One of the benefits you get from Mode C transponders is—and you will see it in the CIP program—is our ability now to say that we no longer have a requirement for en route primary radar. So that becomes part of what we would call a disinvestment plan based upon the introduction of new technology.

Senator LAUTENBERG. That, I believe, is very helpful in terms of accountability of where everybody is, even in the air and certainly in the more congested areas. I guess we have been in that mode for half a dozen years now, 4 or 5 years, with the requirements for Mode C transponders in many more aircraft than there used to be.

Mr. DEL BALZO. Yes.

GOALS OF THE MODERNIZATION EFFORT

Senator LAUTENBERG. Do you have any examples of goals that relate to specific areas of modernization? Is there anything that you have been able to submit that says this is where we plan to be and this is how we plan to do it? Because one of the things that you mentioned, Mr. Del Balzo, is if you were not specific, at least the inference was there, and that is going toward some modularity.

I assume that if we had appropriate collision avoidance, a lot of things could happen on the ground as well as in the air. It is modular. That does not necessarily require a whole system revamp, but if it can alert the pilot or the cockpit crew to something that might be developing, there is a whole series of things that do not have to go through an entire network to system to be significant in terms of advancements in either safety or movement.

Mr. DEL BALZO. I think goals all start with a vision of where you want to go. I mean, we sit back and we look at what is now coming out of our Capital Investment Plan. You know, by the year 2000 we will have fielded some $30 billion worth of new technology. And what we believe is that if we do not use that technology to change how we are managing the airspace, we would have wasted a $30 billion investment.

So you have got to step back and say what am I going to do with all of this stuff when I finally get it? What am I going to do differently that will increase capacity, increase safety, and increase productivity? What is my operational plan? How am I going to leverage all of this technology to do something differently? We have now done that. We have developed an operational vision for the year 2000. And we can now say here is how we will incrementally get there as different pieces of new technology come on line.

There is no question that in the year 2000 you will see the role of the pilot change. You will see the role of our air traffic controller change. You will see the air traffic controller being much more of a systems manager rather than a tactical manager that he or she is today. You will see a distribution of responsibility for this operation of airplanes between the ground and the cockpit. And what we would hope to give you is milestone by milestone how incrementally we will get there so you do not have to wait and worry about whether or not we are going to make it by the year 2000. You are going to know month by month how we are doing.

Probably the best example I can give you is what we have now done on the Advanced Automation System Program. Every month, you will know whether or not, when I tell you we are going to be in Seattle in October 1996 with a working system, you will know that month by month. We have never been able to do that for you in the past.

FAA CONTRACTORS

Senator LAUTENBERG. It is a welcome change, and we will watch with interest.

I would like to ask a question about contracting and contract types. There are some contractors involved more frequently than others in cost overruns at multiyear schedule slippage. Is that a yes?

Mr. DEL BALZO. No; I do not think so. I think what you will find is cost growth and delays are pretty much generally spread, because contractors cannot bear the sole responsibility for either cost growth or delays. We bear probably an equal share of that responsibility. So I think yes, it will vary from program to program, contractor to contractor. But as a rule, I could not make a distinction.

Senator LAUTENBERG. Could you provide for the record a listing of all contractors who have received contracts for work over $50 million since 1982?

Mr. DEL BALZO. Surely.

Senator LAUTENBERG. Indicate slippage, target dates, et cetera.

[The information follows:]

LIST OF CONTRACTS OF $50 MILLION AND GREATER AWARDED BY FAA SINCE 1982

Contractor Name	Description	Award Date	Contract Value	First Delivery Date		Reason
				Ktk	Actual	
Westinghouse Elec Corp	ASR-9 Radar Equip	9/30/83	$559,533,192	3/86	6/88	Software and system integration
Unisys Corp.	Host Computer Sys	9/16/83	52,719,845	12/83	2/84	Design competition phase for Host; additional testing required
Hazeltine Corporation	Microwave Landing Sys	01/12/84	86,872,985	7/85	4/88	Contract Terminated for Default 8/7/89
IBM Corporation	Adv. Automation Sys. (AAS) Phase I DCP	08/20/84	239,300,052	11/86	4/88	Technical Services Risk Reduction/ Demonstrations
Hughes Aircraft Co.	Adv. Automation Sys (AAS) Phase I DCP	08/20/84	266,443,602	11/86	4/88	Technical Services Risk Reduction/ Demonstrations
Westinghouse/Unisys Joint Venture	Mode S	10/05/84	293,167,433	4/87	9/93	Software and systems integration
AT&T Technologies, Inc.	Radio Comm. Link Facilities (RCL)	05/03/85	171,941,064	1/86	3/86	Site Engineering
IBM Corporation	Host Computer Sys. Acquisition Phase	07/18/85	810,598,468	11/86	11/86	
PARAMAX	ARTS II Upgrade/ TPX-42 Replacemnt	07/18/85	54,746,534	8/88	8/88	
Norden Systems Inc.	Airport Surface Dectection Eqpt	09/30/85	105,792,901	12/89	12/91	Software and Antenna Problems, Contractor Relocated, Some Sites not ready.
ST Sys Corp.	Frequency Dir. Finder w/full Remote Maintenance	10/19/84	63,118,625	11/92	11/92	
PARAMAX	ARTS III EQ New York Tracon	03/14/86	89,296,748	7/86 PDR	7/86 PDR	Program Schedules Rebaselined
				7/88 ORD	7/91 ORD	To accomodate additional Air Traffic Requirements
AT&T Technologies, Inc.	Radio Control Eqpt (RCE)	08/07/86	107,902,407	1/88	N/A	Terminated 6/91 For Default (Failure to make progress)

Contractor Name	Description	Award Date	Contract Value	First Delivery Date Kth	Actual	Reason
AT&T Technologies, Inc.	Air/Ground & Grd/Grnd Voice Communications Sys.	10/09/86	187,361,857	9/87	2/88	More time for design and testing to prepare for CDR
Harris Corporation	Air/Ground & Grd/Grnd Voice Communications Sys.	10/09/86	192,403,392	9/87	2/88	More time for design and testing to prepare for CDR
Beech Aircraft	Lease/Purch. of 19 TWIN Turboprop Arcrft (Reval)	01/03/87	60,527,091	10/87	4/88	Integration, Manufacturing, changes
Westinghouse Elec Corp	Provide Joint Procurement FAA/USAF of Long Range Rd ASR4	08/01/88	341,037,467	11/91	3/93	Antenna, S/W and Integration problems.
IBM Corporation	ACQ. of the Advanced Automation System	07/25/88	3,600,000,000	PAMRI 4/91 ISSS 8/92	 4/91 4/95	Problems with S/W development; H/W, S/W integration/testing and changes in computer-human interface (CHI).
Raytheon Company	102 Terminal Doppler Radar System (TDWR)	11/02/88	228,747,205	5/92	12/91	Early w/first delivery
PARAMAX	Interim Suppt Plan-for ARTS IIIA	09/29/89	240,000,000			Contractor on schedule
PARAMAX	Provide for Interim Suppt of ARTS IIA	09/28/90	72,076,006	2/92	2/92	
AT&T Info Sys. Inc.	Fixed & Portable Maint. Data Terminals & Printers	03/14/90	88,567,513			Multiple Deliveries, Many on time; Some late
Harris Corp.	VSCS Production	01/02/92	111,038,983	9/93		
E-Systems Inc.	Aircraft Purchase	01/14/93	410,000,000	4/95 10/95		2 aircraft on order - on schedule

TYPES OF CONTRACTS

Senator LAUTENBERG. The type of contract that FAA has used to procure most major air traffic control systems has been from fixed price. But many of these procurements have been delayed by several years and have their costs grow way beyond the initial fixed price.

Hydrocontractors that experienced cost overruns and schedule delays manage to stay financially healthy. When they are under FFP contract, one of the things that we have learned is that unless we have a very firm specification and unless there is no development that is required, we should not enter into a fixed-price contract.

One of the things that we learned from AAS is that we would have been much better off if we had reoriented that contract at the beginning toward a cost-plus-fixed-fee contract until all of the develop hurdles were overcome. So there was no question that because so many things that we have done in the past we have had our contractors at a disadvantage.

We have forced it upon them fixed-price contracts where they have just underestimated what it would take to solve the technical problems, and in fact, they have not made very much money on us. I think we have learned that and will be doing things differently.

Should they have a better ability to judge where they are going to wind up. They ought to be pushing back to you and say hey, we do not have enough information here to really do this thing. The degree of clumsiness, perhaps amateurishness about companies taking contracts. And believe me, it is easy to criticize. Again, I have been in the business of making estimates, but we always reduced it to its simplest proportions so that we knew exactly where we were going. If we missed, we did not miss by a lot. We were not doing program designs. We were providing services with our programs.

But at some point, I would have hoped that these very sophisticated technology companies would have known where the risks were and not accept a fixed-price contract. I would rather have them say OK, this is what we are proposing instead, and we challenge anybody to offer a fixed-price contract on this without falling on their faces.

Mr. DEL BALZO. I agree with you. I think what you find is a hesitancy on the part of one contractor to do that unless all of his colleagues do the same. I think they are just hesitant to do that, and I think for good competitive reasons.

SUBMITTED QUESTIONS

Senator LAUTENBERG. Thank you to each of the panels. We obviously have subjects here that will continue to need review and update. Mr. Del Balzo, please give us examples of what is now happening on a routine basis so that we can see exactly what the new systems or the new programs are doing. We have other questions to submit and would ask your prompt response.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

FEDERAL AVIATION ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

ACQUISITION REFORM

SENATOR LAUTENBERG: In a January 1993 report on acquisition reform and in its testimony today, the General Accounting Office (GAO) reported that many of the 25 mission need statements it reviewed for the fiscal year 1994 budget cycle lacked adequate support. Specifically, of the 110 deficiencies in the current air traffic control system noted in these 25 mission need statements, 60 percent lacked any supporting analysis.

GAO reported that mission analysis was still not the starting point in the process -- as recommended by A-109 and as followed by the Department of Defense -- but occurred after the mission need statement was drafted. Does FAA plan to conduct mission analysis as the starting point in its acquisition process? If not, why?

ANSWER: FAA has required that mission analysis be the starting point in the acquisition process since September 1991.

Recently, a comprehensive new acquisition policy, FAA Order 1810.1F, dated March 19, 1993, has been issued which totally incorporates top-level policy defined in OMB's Circular A-109, and greatly expands guidance and procedures for all of FAA's acquisition programs. This order clearly requires mission need analysis (MNA) as the basis for determining whether a mission need statement (MNS) will be prepared.

SENATOR LAUTENBERG: In his appearance before this subcommittee in April, Secretary Peña did not object to mission needs statements.

Because some systems may not have received enough attention to their mission needs, do you believe a retroactive review of the most costly systems would be appropriate? On which systems?

ANSWER: Recent changes in policy and recent initiated studies now satisfy the intent of this concern.

On March 19, 1993, FAA issued a comprehensive, stand-alone, all-inclusive reference for acquisition policy, FAA Order 1810.1F, which incorporates all of the principles of OMB Circular A-109. This order requires regular revalidation of mission need, operational requirements, and program affordability at each key decision point by FAA's Acquisition Executive and other top management officials. The policy also is structured in a way that stresses a disciplined, structured, multi-phased development of all acquisition programs, that precludes programs jumping prematurely to production. A most important aspect of the new policy is the requirement for program sponsors to actively participate in all acquisition phases, including the revalidation of mission need in each phase until deployment. The result of these efforts will be programs with mission needs constantly revalidated, and more management involvement throughout the acquisition cycle.

FAA has also initiated several strategic studies of the NAS as a whole, which effectively includes a retroactive review of the mission need of several ongoing acquisition programs from a more global perspective. Examples of these studies include (1) precision approaches, (2) weather system architecture, (3) oceanic, (4) global navigation, and (5) limited consolidation. As a result, many individual acquisition programs within each of these strategic areas may be eliminated or combined with others, and all will have their mission need reviewed.

SENATOR LAUTENBERG: What tangible results can FAA report from its Independent Operational Test and Evaluation (IOT&E) group? Is this group adequately staffed to track FAA's many major acquisitions?

ANSWER: The FAA's Office of Independent Operational Test and Evaluation Oversight continues to expand its acquisition oversight role and capabilities. Recent accomplishments in the area of acquisition reform include both developing and implementing significant policy changes to the FAA's acquisition process and influencing several major acquisition program key decisions.

The IOT&E assessments by the Office of IOT&E Oversight significantly impacted several major acquisition programs during the past year. For example:

-- With respect to the Voice Switch and Control System (VSCS) Program, the Office of IOT&E successfully recommended that the Program Manager seek approval by the Acquisition Review Committee (ARC) before ordering first article hardware for an early limited production decision. The original VSCS OT&E Plan failed to explicitly establish Pass/Fail Exit Criteria to determine whether the OT&E results were sufficient to justify proceeding with the current program schedule, including approval to buy systems for the next two sites (#3 and #4). The IOT&E report was critical to the decision to require Pass/Failure Exit Criteria and to postponing the decision to commit the government to purchase the two additional systems until more test performance information was available for review and analysis;

-- With respect to the Terminal Doppler Weather Radar (TDWR) Program, the Office of IOT&E Oversight identified several test deficiencies and critical operational issues that were not resolved by the original OT&E results. Recommendations were made to conduct an additional OT&E during appropriate weather conditions to collect sufficient hazardous weather data to assess microburst detection and false alarm rates and to conduct an operational evaluation using Air Traffic Controllers communicating with pilots during peak traffic loads at an operational site. That additional OT&E testing will be conducted during June and July 1993 and the Office of IOT&E Oversight will analyze the results at that time.

Previously, the Office of IOT&E Oversight was not staffed sufficiently to monitor all FAA major acquisitions. However, during the past year, the IOT&E staff has increased from 7 authorized positions to 16.

This increase in the IOT&E staff is necessary to monitor all of the FAA's Level 1 major acquisitions. Additionally:

IOT&E staff helped to develop the new DOT Major Acquisition Policies and Procedures (MAPP). The MAPP requires increased rigor and discipline of the acquisition process in the DOT modal agencies. The FAA's IOT&E staff was instrumental in gaining a consensus for requiring each modal agency to establish an independent oversight organization to monitor all Level 1 major acquisitions and any Level 111A designated for oversight by the Transportation Acquisition Executive. Also, the MAPP now requires that a Test and Evaluation Master Plan (TEMP) be prepared for each major acquisition program and that it be revised and updated for approval by the Acquisition Executive prior to each KDP decision to allow the program to progress to the next acquisition phase.

IOT&E staff also made valuable contributions to the development of the revised FAA Order 1810.1F (March 19, 1993) which not only brings FAA major acquisition policy into compliance with the DOT MAPP, but, moreover, provides detailed guidance and implementation procedures for all FAA personnel involved with the acquisition process. FAA Order 1810.1F clearly delineates the IOT&E oversight function with respect to the major acquisition process within the FAA and establishes the Director, Office of IOT&E Oversight, as the Co-Chairman of the Test Policy Review Committee (TPRC) with co-approval authority for all TEMPs. The IOT&E representative on the 1810.1F Working Group was also successful in standardizing the requirement for and usage of such important T&E concepts as "Critical Operational Issues" and "Exit Criteria" in the Operational Requirements Document (ORD) and the TEMP for each acquisition program.

SENATOR LAUTENBERG: FAA instituted the program management matrix to make one person responsible for successfully fielding acquisition projects. Program managers are from the systems development group and have associate program managers from operational and support organizations report to them. This concept did not work for the Advanced Automation System, and FAA recently announced the appointment of three co-equal program managers in its air traffic, airway facilities, and system development organizations. Does FAA plan similar changes on other acquisition projects? What are those projects? Is FAA reevaluating its program management concept?

ANSWER: Because of the Advanced Automation System's (AAS) high visibility and the complexity of the current phase of development, the AAS Program Manager has been elevated to Program Director and now reports directly to the Administrator. To complement this elevation, a senior-level manager from Air Traffic and Airways Facilities have been assigned to work with the Program Director to expedite the process of baselining requirements. To increase product focus, separate Program Managers have been identified for the en route (ISSS) and terminal (TAAS) segments of AAS. Similar changes are not planned for other projects.

The FAA is committed to matrix management. Key to matrix management is the appointment of a single program manager for each program area who is delegated the authority and responsibility to manage his/her program and to serve as the agency's focal point for matters related to the program.

Since matrix management was implemented approximately 3 years ago, FAA established an ongoing process to evaluate the matrix concept and to incorporate improvements. Successful matrix implementation is an evolutionary process; and adjustments to organizational structure, acquisition processes, and program management team training are made as needed to improve outcomes. To this end, FAA has embarked on an effort to benchmark with comparative organizations in the search for best matrix and program management team practices. This effort will compare and evaluate FAA's matrix concept and program management teams against predefined "best practice" standards. Causes for variances will be determined and improvements where variances are significant will be made.

SENATOR LAUTENBERG: FAA has put in place a policy on acquiring "off-the-self" equipment for use in the air traffic control system. To which projects has FAA applied this concept thus far? How many projects now underway will consider "off-the-shelf" technology as a viable alternative?

ANSWER: FAA Order 1810.6, "Policy for Use of Nondevelopmental Items in FAA Acquisitions" was issued November 13, 1992. This policy has been applied to acquiring Modems, Emergency Transceivers, Data Multiplexers, Radio Communications Equipment, and High Capacity Voice Recorders.

Prior to issuance of FAA Order 1810.6, FAA successfully utilized available off-the-shelf technology to meet acquisition needs including the Host computer system which utilized IBM mainframes, peripherals, and operating system, Flight Service Automation Station which utilized Tandem computers, and Flight Inspection Aircraft. These projects utilized off-the-shelf technology as the best solution to meet mission needs considering technical, cost, and schedule benefits.

All projects now underway are required by FAA acquisition Order 1810.1F to consider, as appropriate, off-the-shelf technology during each acquisition phase.

FACILITY CONSOLIDATION

SENATOR LAUTENBERG: For some years, FAA has been studying various alternatives for consolidating its air traffic control facilities to obtain a measure of efficiency through better economies of scale.

Has the FAA come to any decision on how and when it will consolidate its over 230 air traffic control facilities? If so, please describe the consolidation option selected and the basis of its selection.

ANSWER: The FAA's plan is for "Limited Consolidation" of its air traffic control facilities. This includes the in place upgrade of more than 170 terminal radar approach control facilities (TRACON). Metroplex control facilities (MCF) are planned for Southern California, Dallas, Denver, Chicago, and New York. These facilities are large TRACONs that have been established by the consolidation of airspace from existing en route or terminal facilities to provide air traffic control service to a large metropolitan area. Additional studies are in progress for MCF's at Central Florida, Atlanta, Northern California, and Washington, D.C. Future consolidation will take place only if it makes sense operationally, and is cost beneficial.

The Limited Consolidation option was chosen because the operational vulnerability associated with full consolidation was determined to be unacceptable. Further, due to advances in technology, it became possible to bring the benefits of automation to the people, rather than bring the people to the automation benefits. This eliminated the relocation of over 5000 personnel required in the Moderate and Full Consolidation options. Limited Consolidation will introduce new technology to the terminal environment sooner than any of the other options considered.

SENATOR LAUTENBERG: If you choose to go with the "Limited Consolidation" option, which will retain almost 200 facilities in daily use, in what ways will it disrupt various parts of the ATC modernization? Will it cause any additional delays for major CIP projects? For other CIP projects?

ANSWER: The retention of our current facilities as an integral part of the air traffic control system will not disrupt the ATC modernization effort. Certain major projects, i.e., Terminal Advanced Automation System, will be delivered earlier than previously scheduled as a result of the Limited Consolidation decision. There are no CIP projects that will be delayed as a direct result of Limited Consolidation.

SENATOR LAUTENBERG: Has the FAA estimated the cost difference between a radical consolidation alternative and the other two alternatives - - full and moderate? If so, what is the difference?

ANSWER: The life-cycle cost differences associated with Limited Consolidation have been included in the Report to Congress of the Secretary of Transportation, "Plan for Limited Consolidation of the National Airspace System," which will be forwarded in the near future. Estimates demonstrate that life-cycle costs do not vary significantly between moderate and limited consolidation. However, for reasons previously stated Limited Consolidation is the optimal strategy for modernizing the FAA's automation environment.

SENATOR LAUTENBERG: Provide for the record a detailed cost estimate for all three alternatives including costs incurred, costs saved (no consolidation), by year for operations and facilities and equipment.

ANSWER: Details of the estimates for Limited, Moderate, and Full consolidation will be included in the "Report to Congress on the Federal Aviation Administration's Plan for Limited Consolidation of the National Airspace System". This report is in the final coordination at the FAA and will be provided by the end of June.

SENATOR LAUTENBERG: Please provide for the record a listing of the major Capital Investment Plan systems and their acquisition costs that are significantly affected by the facility consolidation decision.

ANSWER: The FAA will shortly be publishing its Capital Investment Plan which will describe the programs associated with Limited Consolidation. Acquisition costs for these projects will be included in the Report to Congress which is in final coordination within the FAA.

ADVANCED AUTOMATION SYSTEM

SENATOR LAUTENBERG: Please briefly explain to the Committee the benefits we expect to realize from the Advanced Automation System (AAS).

ANSWER: The benefits of the AAS program have been evaluated in three separate studies - in 1985 and 1988 by the Mitre Corporation and in 1993 by the Volpe National Transportation System Center. All three studies found that AAS produces significant benefits that outweigh the costs to both users of the Air Traffic Control (ATC) system as well as to the FAA.

The AAS operational capabilities, in the form of expanded hardware capacity and enhanced software, are expected to produce savings to users through sector splitting benefits, granting of more user preferred routes and altitudes, and reduced flow control restrictions. Delays due to sector splitting limitations occur when the ATC system is operating beyond capacity limits - in terms of either the number of display channel ports or limits on the amount of aircraft that can be handled per sector. AAS will decrease these delays by eliminating the hardware constraint of the current automation system with the ISSS and TAAS hardware coupled with productivity improvements attributable to ACCC/AERA. From an ISSS platform, controllers will also be able to provide more fuel-efficient routes and altitude profiles with the assistance of advanced automation capabilities, such as conflict probe, alert and resolution provided by ACCC/AERA. AAS will also provide flow control benefits through more accurate prediction of expected arrival times, delays and absorption strategies.

The FAA benefits, in the form of reduced operation and maintenance costs, consist of controller and maintenance staff savings. Controller staff savings are measured as the difference between the number of controllers that would be needed to handle projected traffic growth with the current ATC automation and the fewer number of controllers that would be needed from productivity improvements of AAS. Maintenance savings represent the difference between the maintenance workload, consisting of personnel, spares, travel and energy, that would be required to maintain today's ATC automation, including adjustments for equipment obsolescence, and the maintenance requirements of AAS.

Other benefits of the AAS program include improved ATC safety as controllers will have added capabilities provided by ISSS and ACCC/AERA to enable them to reduce the risk of collisions due to controller errors, an expanded automation platform with capacity to accommodate future ATC enhancements, and potential capital cost reductions to airlines for fleet replacement due to improved aircraft utilization resulting from shorter and more fuel-efficient routes.

SENATOR LAUTENBERG: Can these benefits be quantified, and if so, how do they compare with the costs, that are clearly quantified, of developing and implementing AAS?

ANSWER: The quantified AAS benefits include sector splitting benefits, user preferred routes and altitudes, improved flow control management, and operations and maintenance savings. The FAA's latest estimate of the AAS benefits to be achieved is $23.5 billion in present value dollars compared to present value cost to be expended of $4.6 billion.

The Volpe Transportation Systems Center (TSC) has also prepared an estimate of AAS benefits. TSC's methodology differs from the FAA analysis but clearly supports the AAS as cost beneficial. The TSC final report will also be ready by the end of June. The FAA will integrate the TSC analysis into the AAS benefits estimates over the coming months.

SENATOR LAUTENBERG: On the basis of your restructuring of the management of the AAS contract, you have a new relationship with IBM, what is different or better?

ANSWER: The FAA assigned a team of FAA personnel, including the ISSS Program Manager to be physically located at the IBM facility in Rockville, Maryland. This team interfaces on a daily basis with the IBM Management and Technical teams and this daily interface has resulted in more open communication and faster decision making. In addition, the team holds weekly program reviews. The team provides increased oversight of IBM and is able to reflect more accurately the status and overall ISSS Software development effort. Resolution of technical issues has been expedited by the team.

SENATOR LAUTENBERG: What specific economic incentives exist in the AAS contract to motivate the primary contractor to deliver AAS hardware and software on time within budget?

ANSWER: The major development and production tasks in the AAS contract are structured as incentive fee line items to motivate the contractor's to perform within negotiated contract costs. The contractor's profit is directly related to the actual cost performance on these line items. For the Cost Plus Incentive Fee line items, the contractor receives no fee (profit) if there are large cost overruns. For the Fixed Price Incentive Fee line items, the contractor absorbs a loss if the cost exceeds the negotiated price ceiling.

Conversely, if cost underruns in the incentive fee line items, the contractor's profit will be higher. In addition, there are Award Fee Pools, valued at $100 million, spread over the life of the contract. Award Fee is used as an incentive to the contractor for superior technical and schedule performance.

The award fee granted is directly related to the FAA's formal evaluation of technical and schedule performance during the period.

SENATOR LAUTENBERG: What economic incentives exist to motivate the secondary or subcontractors to do the same?

ANSWER: IBM has structured its major subcontracts (Raytheon & CSC) to provide economic incentives very similar to those of the prime contract, namely, performance awards based on IBM's periodic evaluation of subcontractor schedule and technical performance, and Incentive Fees for cost performance on production equipment. The Sony subcontract is a firm, fixed price contract.

SENATOR LAUTENBERG: AAS is based on a premise that it would enable FAA to consolidate over 200 air traffic control facilities of varying sizes into 23 large facilities. FAA now indicates that it will consolidate only into about 200 facilities.

How will the new facility consolidation plan affect AAS program costs, including the modernization or expansion of existing facilities or the creation of new facilities?

ANSWER: Several changes are required as a result of limited consolidation on the AAS program. The most significant change will occur in the Terminal Advanced Automation System element in the AAS program. Our plan is to deliver this capability to the nine Metroplex Control Facilities. This will increase program costs by $0.8 billion. Since 1984, TRACON relocations and modernizations except for unique or unusual circumstances have been suspended. As a result of deciding to retain TRACONs in our system, modernization and some replacement will be required in our terminal facilities. This amount is estimated to be $0.6 billion and is currently being refined. Other consolidation related costs are $0.2 billion.

SENATOR LAUTENBERG: At the request of the Congressional Appropriations Committees, FAA last year asked the Volpe National Transportation Systems Center to assess the status and technical risks of the AAS software development process. While FAA addressed a number of the Volpe Report's recommendations in fairly short order, FAA seemed to hold several recommendations in abeyance. And as it turned out, you agreed that these recommendations were key to getting the AAS contract back on track. For example, putting an FAA management team responsible for on-site oversight of the contractor for each major segment of the AAS.

Why did it take FAA so long to adopt the most useful of the Volpe recommendations?

ANSWER: Throughout the conduct of the assessment, the FAA cooperated fully with TSC. We viewed the assessment as an opportunity for an independent look at how we could better manage the program. The resultant report was accepted by the FAA and we began implementation of the vast majority of TSC's recommendations even before the final report was issued. Implementation of several of the recommendations was changed as a result of the "cure process" which may have given the impression that we failed to act until the "Cure".

SENATOR LAUTENBERG: What lessons have you learned from AAS that you can apply to other systems plagued by delay and cost growth?

ANSWER: The Advanced Automation System (AAS) is larger and more complex than other FAA acquisition programs, but similar in the types of problems that have occurred. Because of the differences we are cautious in directly applying AAS experience to other acquisition programs, but many lessons are applicable. From AAS and other programs we have learned about the interrelationship between delays and cost growth and that it is very difficult to makeup schedule delays at any price. Though it is necessary to plan strategically with an overall system design, grand projects must be broken into more manageable programs that can be accomplished with tolerable risk. Programs also need active involvement by all relevant parts of the agency during the acquisition phase to assure that the program meets customer needs.

SENATOR LAUTENBERG: What further risks are there in the AAS? What further costs are there in the AAS? What is the probability that you will not exceed this estimate of additional cost?

ANSWER: The major remaining AAS risk areas are: continuous operations design solution, introduction of all digital displays for approach/departure control in the terminal area, and acceleration of the schedule to deliver external user benefits. The remaining costs in AAS are the baselined production, test, implementation and maintenance costs for all segments beyond PAMRI and the completion of the baseline design for TAAS, AERA/ACCC and TCCC. We are analyzing our cost baseline now to consider the effects of the schedule delay and the limited consolidation decision. Every effort will be made to implement the remaining AAS segments within the budget.

SENATOR LAUTENBERG: Does your contractor for the AAS program plan to sell parts of the AAS to other countries and, if so, which parts and to which other countries has IBM marketed AAS?

ANSWER: The technical and availability requirements for the AAS are far more demanding than those of any other country, and as such, AAS has not been marketed as a system to other countries. However, some software components developed for AAS, operating in the advanced commercial hardware products used in AAS such as the RISC 6000 processors and Local Area Networks, are applicable to ATC systems in other countries. IBM has submitted proposals to several countries such as Taiwan, the U.K., Finland and Sweden which include adaptations of some AAS software components operating in the same type of commercial hardware products that are used in AAS.

SENATOR LAUTENBERG: If IBM has marketed aspects of the AAS program to other countries, what is the approximate value of those potential sales over the next five years and what is the planned delivery schedule of that equipment to the foreign country first expected to receive AAS equipment?

ANSWER: IBM currently has ATC contracts with only two other countries that involve the commercial hardware components used in AAS and adaptations of ISSS software. The approximate value of these contracts is $300 million. The first delivery is to Taiwan where the schedule for system acceptance is March 1994. It should be noted that this system uses only a small part of the software developed for ISSS; most of the ATC applications software was derived directly from the Host system and ARTS 111A.

SENATOR LAUTENBERG: Does IBM plan to deliver AAS equipment to a foreign nation before it provides similar equipment to FAA?

ANSWER: Commercial products used in AAS common consoles, such as the RISC 6000 processors, Sony displays, and Main Display Controllers will be delivered as part of the Taiwan system before the ISSS becomes operational in the U.S. Earlier delivery is possible because of simplified requirements for the Taiwan system, compared to AAS.

SENATOR LAUTENBERG: What are IBM's earliest dates for delivery AAS hardware/software to foreign countries?

ANSWER: IBM will deliver a system to Taiwan for acceptance in March, 1994, which uses some AAS hardware and software components.

SENATOR LAUTENBERG: If these dates are earlier than when IBM plans to deliver similar portions of AAS to U.S. sites, please explain why contractor effort is going into foreign sales when the contractor is so far behind in developing the system for domestic use.

ANSWER: IBM submitted its proposal for the Taiwan system in 1989 which was much earlier than the time when schedule problems first appeared in the AAS program.

Since IBM's international business depends to a large degree on the success of AAS, IBM has focused it key resources on AAS and has not allowed its international business to impact this program. In addition, the complexity and loading of these systems are significantly less than the AAS and lead themselves to a rapid, simpler implementation.

SENATOR LAUTENBERG: What cost increases are expected from the recently announced ISSS and TAAS segment delays? What is FAA's current estimate for total AAS costs?

ANSWER: The estimated cost of the recent ISSS and TAAS delays is between $180 and $240 million. We are continuing to analyze the impact of this delay as well as the impact of the limited consolidation decision on our $4.7 billion AAS program. Every effort will be made to complete the program within the cost.

SENATOR LAUTENBERG: The delays in implementing AAS have necessitated that FAA consider initiating several interim projects to sustain existing air traffic control equipment until AAS is fielded. What are these projects and how much will they cost? Are the costs of these interim projects included in FAA's estimate of total program costs for AAS and considered in its decisions on AAS?

ANSWER: The following projects were initiated to sustain air traffic control equipment until AAS was fielded or under the new limited consolidation scenario until new TRACON automation equipment is available.

INTERIM SUPPORT PLAN: Provided ARTS II and ARTS III position equipment, ARTS III solid state memory, and tape/disk drive replacement. Cost - $203.9 million

ARTS IIIE UPGRADE: Upgrade terminal automation from ARTS IIIA to ARTS IIIE at selected TRACONs.
Cost - $61.6 million

ARTS IIA CAPACITY: Provides additional ARTS IIA peripheral processors and MCI capability to increase capacity.
Cost - $45.0 million

ARTS IIIA CAPACITY: Provides additional ARTS IIIA Input/Output processors to support MCI capability and increase capacity.
Cost - $109.8 million

The costs of these interim projects are not included in the total AAS program costs but are identified as separate projects in the Capital Investment Plan (CIP) and the associated financial baseline and have been considered in the decisions on AAS.

SENATOR LAUTENBERG: Some requirements for AAS have yet to be finalized and others may be relaxed. Therefore, FAA may field a system that is initially less than a full AAS, necessitating upgrades at later dates. What is the impact of open requirements on program costs? If FAA relaxes some requirements, what compensation will it receive from IBM?

ANSWER: The AAS was always planned as a phased implementation of initial capabilities, transitioning to full AAS at a later date. The FAA is handling "open" requirements in AAS by the use of "Block updates" which are budgeted to insert baseline or new functionality which is not yet available in the regular software build cycle into the system at a later time, but with sufficient time to meet the full test requirements (including regression testing) without compromising safety in any way. Based on experience, this is the only practical approach to fielding an ATC system as large and complex as the AAS, even with the phased segment approach. As a rule, the FAA relaxes requirements only under very limited circumstances. All requirements relaxation must be justified, and may not compromise safety or the mission. Whenever a requirement which was costed in the contractors original bid is relaxed or waived, the government is due some form of consideration. Such cases are documented and the consideration is formalized during contract modification negotiations.

SENATOR LAUTENBERG: What benefits will FAA receive from its individual investments in each segment of AAS?

ANSWER: The AAS program can be viewed in the following five segments: Peripheral Adapter Modular Replacement Item (PAMRI), Initial Sector Suite System (ISSS), Terminal Advanced Automation System (TAAS), Area Control Computer Complex (ACCC)/Automated En Route ATC (AERA), and Tower Control Computer Complex (TCCC). Achievement of the AAS benefits in these segments is interrelated with the implementation of several other projects in the Capital Investment Plan ,such as the Voice Switching and Communication System (VSCS), digitized terminal radar, Mode-S, and data link.

Specific benefits for each AAS segment are discussed below. In general when implemented, ISSS will have the capability to allow an en route center to process up to 25 radar inputs and 90 sectors compared to the current average of 15 radar feeds and 60 sectors. Operationally, ISSS, in conjunction with VSCS, is expected to improve controller productivity due to more efficient automation and voice communication aids. Building upon the ISSS platform, implementation of the TAAS segment will provide increased capacity to eliminate the ATC delays that would otherwise be imposed by the current Host computer's limitations to meet forecasted demand. The ACCC phase will replace initially the Host computer software, followed with additions of new functions such as air/ground data link and AERA capabilities. With the completion of these three segments, AAS will have the capability to provide a center on average to receive up to 49 radar inputs compared to 15 in today's Host-based system, operate 155 sectors compared to 60 sectors, increase the number of radar tracked aircraft from the current limit of 940 to 6000, and process 7000 flight plans versus the current limit of 2500. The TCCC phase is expected to improve controller productivity through the elimination of the use of multiple data entry and displays that the tower controller has to work with. Further, TCCC is also expected to lower maintenance, logistics, and training workload in the tower environment.

In sum, these capabilities provide the fundamental basis for AAS benefits attributable to controller productivity, maintenance savings, sector-splitting benefits, user preferred route and altitudes, and improved flow control procedures.

AAS benefits to the FAA, on a per segment basis, are listed below:

PAMRI: Increased reliability, ability to handle increased radar coverage, greater data communication line capacity, greater data communication speed, easier maintenance.

ISSS: Electronic flight data, color monitor, more flexible MMI, more efficient controller coordination, greater reliability, easier maintenance, faster reconfiguration, improved control room environment, platform for advanced automation functions, improved display/data recording and playback capability.

ACCC/AERA: Replacement of HOST software, increased controller productivity through new tools, improved software reliability/ maintainability, easier hardware and software upgrades, ability to grant more pilot requested routes.

TAAS: Ability to establish consolidated TRACONS called Metroplex Control Facilities (MCF's), electronic flight data, color monitor, more flexible MMI, more efficient controller coordination, greater software and hardware reliability, easier maintenance, faster reconfiguration, platform for TATCA and other Terminal ATC automation enhancements, easier hardware and software upgrades, greater hardware and software commonality with en route ATC automation, improved display/data recording and playback capability.

TCCC: Electronic flight data, new MMI technology tailored to tower environment, consolidated/improved displays, more efficient controller coordination within tower and with TRACON, easier maintenance, greater commonality of software and hardware, improved controller productivity through use of data link, digital ATIS, etc. platform for new automation capabilities such as Departure Flow Management or runway incursion monitoring, improved display/data recording capability.

SENATOR LAUTENBERG: Please provide us with the results of your demonstration and test activities on the Initial Sector Suite System in Seattle.

ANSWER: We will be pleased to report the results of the demonstration and test activities on the Seattle ISSS, following commissioning in October of 1996.

SENATOR LAUTENBERG: Would the benefits derived from ISSS be reduced in any way if FAA does not proceed with TAAS, the Tower Control Computer Complex (TCCC), and the Area Control Computer Complex (ACCC)? If yes, how?

ANSWER: The benefits associated with ISSS are not expected to be reduced if FAA does not proceed with TAAS, TCCC, and ACCC. However, the substantial benefits to users generated by the TAAS and ACCC segments of AAS are dependent upon an ISSS platform, without which the ability to grant user preferred routes, create additional sectors, and host additional CIP functionalities such as Terminal ATC Automation (TATCA) and Aviation Weather Processor Generator (AWPG), will be affected.

SENATOR LAUTENBERG: Would the benefits to be derived from TAAS be reduced in any way if FAA does not proceed with TCCC? If yes, how?

ANSWER: Yes. The TAAS system relies on TCCC for airport environmental and status data. TCCC also provides the electronic interface for flight data and aircraft handoffs between the tower and the TRACON, so controller efficiency would suffer without the TCCC. Also, certain advanced ATC automation capabilities require a TCCC platform in order to reap the full potential for benefits. Examples of TAAS automation capabilities which would suffer reduced benefits without TCCC include Data Link, TATCA, Departure Flow Management, and other traffic management/airport capacity improvement aids. Without the TCCC portion of these tools, TRACON controllers would be forced to employ manual coordination with the tower controllers, thus negating much of the potential automation productivity gain for both controllers and external users.

SENATOR LAUTENBERG: What type of analysis has been conducted to demonstrate the need for benefits from TCCC? What are the benefits of TCCC?

ANSWER: On 3/31/93 the FAA issued its Air Traffic Operational Requirements for Tower Automation Systems(Order 7032.12) which spelled out the criterion for automation services at various level Air Traffic Control Towers (ATCT). The Tower Control Computer Complex (TCCC) has been restructured to produce systems consistent with this new order. The TCCC will provide electronic flight data,new Man Machine Interface technology tailored to tower environment, consolidated/improved displays, more efficient controller coordination within tower and with TRACON, easier maintenance, greater commonality of software and hardware, improved controller productivity through use of data link, digital Automated Terminal Information Service (ATIS) and a platform for new automation capabilities such as Departure Flow Management or runway incursion monitoring, improved display/data recording capability.

SENATOR LAUTENBERG: What type of coordination has been done within the FAA to prepare for the possible integration of data link with AAS?

ANSWER: The FAA has completed a draft ATC Automation Strategic Plan which describes how AERA 2, TATCA, Data Link, and other automation enhancements are integrated into the operational NAS. The FAA's System Engineering, Air Traffic Service, and the Advanced Automation Program are working closely together to finalize the Strategic Plan to provide early benefits to the controllers and the pilots.

SENATOR LAUTENBERG: Can you explain the need for the "seven 9s" in the reliability requirement?

ANSWER: The functions of the AAS were categorized into three levels of criticality. Only the most critical functions, (called the emergency mode) which includes essential services such as keeping the radar data display from going blank were given the seven 9s availability requirement. Other slightly less critical functions such as conflict alert and minimum safe altitude warning require less availability (six 9s). The set of functions with the least availability (five 9s) includes functions such as display recording. In addition, the AAS specification allows the failure of one operational position without penalty. Only after two or more operational positions have failed does the unavailability meter begin to run.

SENATOR LAUTENBERG: How much does each of the nines cost?

ANSWER: The hardware costs to provide the redundancy to permit seven 9s availability is not a significant cost factor. A system with perfect software and no hardware redundancy could at best achieve two 9s which would clearly be unacceptable for safety critical applications. The amount of redundant hardware needed to achieve seven 9s is not significantly greater than that required to achieve four, five or six 9s. The largest hardware costs are for common consoles. The seven 9s sector suite availability is achieved not by buying very high reliability consoles, but by permitting continued ATC operation with a reduced number of consoles when a console within a multiple console sector suite fails. Reducing the availability requirements would not reduce either hardware costs or software development cost, unless the requirements were reduced to the point at which redundancy and the requirement to tolerate software faults are no longer required. This would necessitate reducing the requirements to below .99, which would clearly be unacceptable.

Thus since hardware redundancy is essential, hardware is not a cost factor or limiting factor in the potential to achieve six or seven 9s availability. The major contributors to unavailability are defective system software design, production and integration. Is allowing significant latent system software faults to exist in the system when accepted by the government an option? Therefore the costs associated with producing a highly available system are largely one of quality system and software design and production. It is difficult to quantify the cost of removing a latent design defect that would increase the availability by one or more nines.

SENATOR LAUTENBERG: Could we get by just fine with six or five 9s?

ANSWER: We can and almost certainly will. As noted above only the most critical functions require seven 9s.

The 9s availability is commonly referred to as the inherent availability. In contrast to the inherent availability, which is a fixed characteristic of the system architecture and the degree of redundancy provided, the achievable availability of large computer systems is primarily determined by the thoroughness and effectiveness of the test process in exposing and correcting latent software defects.

The AAS availability requirements were used to provide a standard for competing contractor's designs and to provide a common basis for comparing the inherent characteristics of the proposed architectures and to allow the contractor the flexibility to achieve the needed availability at minimum cost.

The requirements were designed for a generic hypothetical architecture of 50 sectors of three consoles each. This specific configuration will not be tested or deployed. Moreover, it is statistically impossible to verify seven 9s availability within any finite cost and schedule constraints. A single thirty minute interruption would make it impossible to meet the requirements even if no additional failures were experienced at any site for the rest of the projected AAS lifetime.

Clearly, the seven 9s cannot be used as a standard for deployment. System testing will need to continue until the users of the system are satisfied that the significant unrecoverable failure modes of the system have been found and eliminated, and that the frequency and duration of automatically recovered interruptions caused by remaining software defects is operationally acceptable. For a high availability ATC system, the duration of the outage is far more important than the frequency of the outage. The issue is how often latent fault causing defects are encountered, what recovery time can be guaranteed when the fault is encountered, the length of ATC service interruption and the integrity of the data after recovery. For example, five 9s permits 300 seconds or 5 minutes of downtime per year. One outage of 5 minutes duration in a highly automated heavy activity facility is unacceptable. In contrast, a 2 second per day outage, which would also result in five 9s availability, would be acceptable, provided the attributes of data integrity, etc are met.

SENATOR LAUTENBERG: If seven 9s, or 99.99999 percent reliability, means 3 seconds per year of downtime, how many seconds of total down time per year would 99.999 percent represent?

ANSWER: About 5 minutes.

SENATOR LAUTENBERG: What other parts of the CIP require a "seven 9s" reliability?

ANSWER: One system within the CIP (December 1991) requires seven 9s availability. That system is the Voice Switching and Control System (VSCS CIP Project # 21-11)

SENATOR LAUTENBERG: Is this a standard for all pieces of the CIP? If not, why not?

ANSWER: Seven 9s availability is not a standard for all CIP projects. The CIP project availability is based on an analysis of operational service requirements allocated to the project. Typically, projects that support critical functions (ie., those that if lost would prevent the National Airspace System from exercising separation and control over aircraft) require the highest availability.

VOICE SWITCHING AND CONTROL SYSTEM

SENATOR LAUTENBERG: The Voice Switching and Control System (VSCS) has been designed to replace various air-to-ground and ground-to-ground communications systems. VSCS is expected to achieve a high level of reliability (99.99999 percent) and to have the capability to automatically reconfigure voice frequencies when airspace sectors are changed. FAA signed a contract with Harris Corporation on December 31, 1991, to upgrade the prototype VSCS system to the level of capability needed to help control traffic and then to produce systems for installation at 22 facilities. The contract includes a limited production decision for the first 5 of these systems, and a full-production decision later in 1993.

During the past year, the contractor has experienced delays in upgrading the prototype VSCS, and the first field installation for VSCS has been delayed about 8 months to February 1995. For fiscal year 1994, FAA is requesting a total of $232.5 million to continue the VSCS project. This includes $61.5 million in engineering and development funds and $171 million for production systems.

The VSCS delivered in January did not include the automatic reconfiguration capability. When will Harris be able to build this capability into the production VSCS system? Will adequate time be available to test this capability before the limited and full production decisions are made?

ANSWER: The VSCS delivered in January included reconfiguration capability which has undergone an operational evaluation. These results will be available for the full production decision milestone in December 1993. The current capability will be expanded in additional software builds. Simultaneous reconfiguration capability will be provided in January 1994. Builds will be developed for ISSS transition in late 1994 and for full capability to respond to ACCC commands in the Planned Product Improvement phase in 1996. Operational test and evaluation of these additional capabilities will be provided at those times.

SENATOR LAUTENBERG: If not, how will FAA assure itself that the contractor will be able to deliver the operational systems with this capability? If the contractor cannot meet the contract requirements for reconfiguration will FAA receive monetary compensation?

ANSWER: FAA is providing for operational testing of the reconfiguration capabilities after each software build to validate that the reconfiguration requirements have been met. Reconfiguration falls under the "cost plus award fee" portion of the contract. If Harris were to fail to fully meet the reconfiguration requirements, this would be reflected in the level of the award fee.

SENATOR LAUTENBERG: Thus far, in testing at Harris, the VSCS has fallen short of the goal of 99.99999 percent reliability. Does FAA believe Harris will be able to achieve this level of reliability based on testing thus far? If the contractor cannot meet the goal of 99.99999 percent reliability, will FAA receive monetary compensation? What would be the operational impact of VSCS not meeting the 99.99999 percent reliability goal?

ANSWER: The VSCS specification requires 99.99999 ("seven nines") availability for hardware. Tests at Harris have shown that hardware availability exceeds eight nines. As software matures, it is expected that overall system availability will approach hardware availability, and will exceed seven nines. The operational impact of not meeting the seven nine goal could be a total system outage in a given center. Until assurance of meeting seven nines is achieved, FAA is reviewing an independent path to existing radios and the backup emergency communications system. System availability falls under the "cost plus award fee" portion of the contract. If FAA deems that Harris progress in the development of software maturity is not satisfactory, this would be reflected in the level of the award fee.

SENATOR LAUTENBERG: The production request of $171 million includes long lead items for eight VSCS production system. Are these funds necessary given the 8-month delay in the project?

ANSWER: The FY 1994 request already took in to account the program delay. The long lead time items must be ordered to meet current program schedules.

CONTRACTING AND CONTRACT TYPE

SENATOR LAUTENBERG: The type of contract that FAA has used to procure most major air traffic control systems has been "firm fixed price." But many of these procurements have been delayed by several years and had their costs grow significantly.

In terms of the proportion of: (1) total contracts; and (2) total dollar value for air traffic control modernization projects, to what extent has FAA used "firm fixed price" (FFP) contracts in its modernization program?

ANSWER: Of the 21 major system acquisitions (contracts in excess if $50 million) awarded since 1982 in support of air traffic control modernization projects, 13 contracts or 62 percent were primarily FFP in nature. The aggregate total value of these contracts is approximately $6.9 billion which represents 83 percent of the aggregate value of the 21 MSA contracts.

SENATOR LAUTENBERG: To what extent do these FFP Contracts have economic price adjustment clauses?

ANSWER: The FAA incorporated economic price adjustment clauses into approximately eight contracts, most of which were awarded in the early 1980's during a period of high inflation and uncertain economic conditions. Most, if not all of these provisions have proven to be disadvantageous to both parties and have been in some cases, negotiated out of the contract.

SENATOR LAUTENBERG: How do contractors that experience cost overruns and schedule delays manage to stay financially healthy when they are under a FFP contract?

ANSWER: The ability for a contractor experiencing overruns and schedule delays to remain financially healthy under a FFP contract is tied to several factors including: the size of the contractor, the organizational structure of the contractor, the financial strength of the contractor at the time of contract award and the circumstances surrounding the overrun or delay.

Prices negotiated under a FFP contract have profit factors which are significantly higher than those under a cost reimbursable contract in recognition of the additional risk associated with a firm fixed price. From the start, the price serves as a "cushion" in the form of higher profit margins to provide some protection to the contractor against losses in the event of cost overruns.

Typically, contractors who experience overruns so significant as to exceed the profit amount will cover the losses by drawing down on corporate reserves generated from other revenue bearing sources. Often, a contractor will purposely make this investment in anticipation of future commercial opportunities. Contractors, particularly those classified as small businesses, not possessing large corporate resources to draw upon, run the highest risk to financial health and stability.

It has been the FAA's experience that contractor's experiencing overruns either due to cost growth or schedule delays will attempt through a request for equitable adjustment or formal claim to demonstrate Government liability in whole or part. If that contractor is successful, any losses may be recovered from the Government, in some cases with interest.

SENATOR LAUTENBERG: FFP contract type is supposed to be used when a fair and reasonable price can be established at the outset, the specifications are reasonably definite or describe a commercial item, and adequate competition is expected. How does FAA measure whether adequate competition is present?

ANSWER: The Federal Acquisition Instructions (FAR 16.202-2) indicate the existence of adequate price competition to be a condition that may be present when using the FFP type of contract. They do not preclude the use of the FFP type contract in other than competitive situations.

The determination as to the existence of adequate competition begins during the acquisition planning process. Typically a study of the market is conducted to determine how many potential offerors exist. Requirements are published in the "Commerce Business Daily" to ensure all potential offerors have the opportunity to express interest and participate in the acquisition. Also, this agency has initiated the practice of releasing draft Requests for Proposals (RFP). In addition to providing potential offerors with the opportunity to comment on the quality and clarity of the requirements package; this process also serves as an indicator of the level of interest in the acquisition. As a result of the market survey, either a bidders (potential offerors) list is compiled or a Justification for Other than Full and Open Competition (JOFOC) is processed.

If a number of potential offerors are identified, a full and open competition is conducted commencing with the release of an RFP. If only one responsive offer is received in response to the RFP, the contracting officer makes a determination that adequate competition does not exist and enters into negotiations with that one responsive offeror to arrive at a fair and reasonable price. If more than one responsive offer is received, it is determined that adequate competition exists and the predetermined selection process is followed through to award.

SENATOR LAUTENBERG: In many instances when FFP contract type is used for a major procurement, it can be shown that a significant amount of development is still needed before production can begin. This is risky for the contractor and it is limited by statute and regulation. It seems like a recipe for disaster from the contractor's position, especially if final development activities and testing show that production will be delayed.

What other contract types are available that would provide a more accurate picture of the various risks involved in acquiring a major system?

ANSWER: In the course of an major system acquisition program, a series of contracts, or a single long-term contract, may be structured to reflect the changing circumstances which may make a different contract type appropriate in later periods than that used at the outset. In the development phases, cost reimbursable contracts are used, recognizing the risk associated with uncertainties and the narrow basis for firmer pricing. As risks are identified and in some cases mitigated, it may be appropriate, particularly during initial production, to incorporate incentive provisions. Either a Cost Plus Incentive Fee or a Fixed Price Incentive contract may be appropriate. Incentives may be based on performance objectives tied to cost control, technical goals or schedule milestones. The incentive forms of contract serve to shift the risk from the government to the contractor, providing the contractor with the potential for increased monetary reward. In the production phase of the program, when risk is minimal or can be predicted with an acceptable degree of certainty, it is generally in both parties' interest to enter into a firm fixed price arrangement.

FACILITIES & EQUIPMENT REQUESTS AND INCREASES IN AIR TRAFFIC

SENATOR LAUTENBERG: The Federal Aviation Administration's (FAA) Facilities and Equipment (F&E) appropriation grew from $260 million in fiscal year 1982 to $2.4 billion in fiscal year 1993, an increase of over 800 percent. Over approximately the same period, aircraft operations grew only 5 percent (from 127.6 million in 1982 to 134.2 million in 1992). Despite diminishing air traffic over the last 2 years and the overestimation of air traffic growth over the last decade, FAA continues to predict growth in aircraft operations during the 1990s and beyond.

Does FAA anticipate that the F&E budget will level off over the next few years when projects in its original National Airspace System Plan start to come on line?

ANSWER: Current projections show a leveling off in the future F&E budget requests through the latter half of the 1990s. The need for infrastructure support such as building and equipment replacement will continue. There will also be a continuing need for update of the existing systems, but system enhancements will be easier because the design of the current systems use open architecture software and a more modular configuration.

SENATOR LAUTENBERG: FAA has predicted increased capacity in the air traffic control system when F&E projects are implemented. How will we know when the capacity of the air traffic system catches up with the volume of air traffic? How will FAA measure this? Should we expect a decrease in the number of delays in the air traffic system over the next few years as projects are installed and, if so, how much of a decrease?

ANSWER: FAA's F&E appropriation pays for much more than just expanding capacity. It pays for modernizing the air traffic control system, supporting it, and replacing worn out or obsolete equipment. For example, FAA replaced the obsolete, vacuum tube computers (which were at maximum capacity) with modern Host computers that can handle the system into the next century. Another major and equally important purpose of F&E spending is increasing safety. Aviation safety has increased steadily over the years.

FAA has made some progress in reducing delays. While air traffic operations declined by almost 2 percent from 1990 to 1992, delays declined at a faster rate -- 28 percent from 1990 to 1992. Much of this decline can be attributed to recent FAA capital investments (e.g., the Traffic Management System). Further reductions in system delays are expected in the future with the implementation of capacity-related capital projects such as modernizing the precision approach and landing system using the Microwave Landing System and the Global Positioning System.

Currently, many major airports do not have sufficient capacity to handle today's demand. FAA uses delays, especially capacity-related delays, to measure where demand exceeds capacity. With the growth in system capacity resulting from the implementation of capital investment projects, system delays are expected to decrease substantially. FAA expects demand to grow. Although FAA forecasts today are not as optimistic as a few years ago, they still expect modest long term growth.

SENATOR LAUTENBERG: Has FAA made adjustments to its long term forecasting models as a result of the inaccurate forecasts in aircraft operations and other activity measures over the last decade? Does FAA adjust its future air traffic estimates given changes in other technologies?

ANSWER: Yes, FAA periodically evaluates and adjusts its forecast models to account for changes in the economic environment. FAA sponsors workshops to critique the techniques and practices used by FAA and other aviation forecasters and to examine the outlook for the industry and the prospects for aviation growth. The workshops focus on the forecast process and ways to improve the reliability and utility of the forecast results. The future air traffic estimates are reviewed and adjusted periodically to account for major influences such as significant changes in the price of oil and deep fare discounts. There has been some concern that changes in technology such as video-conferencing and voice mail may lead to reduced demand for air transportation by business travelers. Although many firms have implemented video-conferencing, some people believe that technology increases productivity, saves time, enhances business opportunities, and may even increase travel. Changes in other technologies, such as tiltrotors, supersonic transportation, and high speed ground transportation are considered when preparing and evaluating the aviation forecasts.

SATELLITE SYSTEM

SENATOR LAUTENBERG: Modernizing this nation's air traffic control system is a 20-plus-year effort and is fast approaching a total cost of almost $40 billion. What seemed like a technologically sound idea in 1980 might not be the best alternative in 1990, 1993, or the year 2000. In fact, one of these new technologies -- the Global Positioning System -- would seem to have the potential to replace several parts of FAA's modernization program.

Does the Department have an estimate of the potential for satellites to supplant the capability now provided by various radars and landing systems? Which guidance and surveillance systems, both installed now and in planning stages, could potentially be affected?

ANSWER: Satellite technology has the potential to replace virtually all of our existing ground-based navigation, landing, and surveillance systems including:

ILS - Instrument Landing System
MLS - Microwave Landing System
VOR - Very High Frequency Omnidirectional Range
DME - Distance Measuring Equipment
NDB - Nondirectional Beacons
DF - Direction Finding System
Radar systems

We believe that we can take the calculated risk that a Category I precision approach capability is possible using satellite technology. We believe this capability will exist at all airports in the United States using wide area differential GPS which is being flight tested at our Technical Center in New Jersey. We believe that the capability will exist by 1998, only five years from now. We have already adjusted our Capital Investment Plan based on this belief, truncating the procurement of Category I ILS after 1995, except for replacements.

There is a lot of work yet to be done, especially in the areas of accuracy, signal availability, continuity, and integrity. These issues are being worked by both the United States and other governments through bilateral agreements, and also through more formal international panels and working groups. For Category II/III, it is still our plan to procure MLS starting in 1996 to meet all national and international commitments. We have not yet proposed funding the installation of Category II/III GPS equipment, but we are aggressively pursuing the continued development of technology which may provide the required accuracy, continuity, integrity, and availability.

A decision to transition totally to satellites for surveillance (replacing radars), navigation (replacing VOR, NDB's and DF's) and for precision approach and landing (replacing ILS/MLS) depends upon the ultimate integrity and robustness of the satellite signals and results of research and development activities. To date the Federal Aviation Administration has not decided that GPS as a sole means of navigation is the best alternative to existing systems. If we do transition totally to satellites for navigation, landing, surveillance, rulemaking, and possibly legislation will be required to ensure that all aircraft are equipped with the necessary avionics.

SENATOR LAUTENBERG: How much can be saved by scrapping plans for new radars and landing systems with a satellite-based precision landing system?

• ANSWER: Current planning is based on the idea that Category I precision approach capability can be provided in the United States by 1998 using Wide Area Differential GPS. If this GPS Category I capability is achieved, we estimate a potential cost savings of several hundred million dollars in planned ILS and MLS acquisitions through the year 2000.

SENATOR LAUTENBERG: What other major systems in FAA's Capital Investment Plan (CIP) could have their procurement truncated if satellite navigation and precision approaches are successful and implementation is possible within the next few years?

ANSWER: There are no other existing procurement that could be truncated if the introduction of satellite technology is successful.

SENATOR LAUTENBERG: I understand that in 1995 you will complete a study looking at GPS utility at Category II and Category III runways. ICAO, the international body, will also complete a reassessment of precision landing systems at that time.

Would it not be financially wise, then, to withhold acquiring new radars or approach aids until the results of these deliberations are available?

ANSWER: We have truncated the procurement of Category I ILS after 1995 based on the belief that a Category I precision approach capability is possible using satellite technology.

We expect to complete a preliminary determination of the feasibility of supporting Category II/III precision approaches with GPS before 1996. The anticipated 1995 ICAO reassessment of precision landing systems is expected to focus largely on the early results of our study, which will be made available as we continue to work with our international counterparts. The U.S. decision to proceed with production of Category II/III MLS equipment is not scheduled until late 1996 or early 1997.

Procurement cycles for major acquisitions such as radars and landing systems are lengthy, requiring several years to develop and field. If we delay our plans to replace an already aging inventory, the consequences could have major impact upon ATC if it turns out we need to have ground radar to back up the satellites.

Acquisition of new radars is not related to GPS Category II/III landings per se. A dependent surveillance system using GPS positioning may eventually be capable of replacing radars, but the surveillance issue is much more complex than the navigation/landing issue. A separate FAA study, examining the potential for domestic dependent surveillance, is now in progress. It would be premature to withhold funding for new radars until after this potential has been fully evaluated.

WEATHER

SENATOR LAUTENBERG: Because FAA reports that weather causes the lion's share of flight delays in the ATC system, I know that you have a significant number of projects having to do with identifying dangerous weather patterns and providing weather data to controllers and pilots.

Have you established any measurable goals in terms of reducing ATC system delays caused by weather and, if so, what are they?

ANSWER: We have established a goal to reduce weather related delays by 15 per cent by the year 2000.

SENATOR LAUTENBERG: Which weather systems do you expect to provide you the greatest return in terms of meeting your goals?

ANSWER: We have assessed the economic benefits of 12 projects that will contribute to reducing ATC system delays caused by weather. These 12 projects are expected to reduce weather-related delays by $17.2 billion dollars in present value terms. The top five projects are the Central Weather Processor, Terminal Doppler Weather Radar, NEXRAD, Flight Service Automation System, and Automated Weather Observing System.

SENATOR LAUTENBERG: In another weather-related area, I am concerned about a request we made of you last year regarding the benefit-cost study for the ASDE-3 radar. Does one exist, and if so, why has it not been provided to us as requested in the conference report? (House Report 102-924, page 29) If there is no current benefit-cost report, on what basis are you planning to install ASDE-3 radars?

ANSWER: Although the referenced study was previously described as being complete, the FAA is still in the final approval cycle for changes to the Airway Planning Standard Number One (APS#1) - Terminal Air Navigation Facilities and Air Traffic Control Services reflecting the newly developed establishment and discontinuance criteria for the ASDE-3 radar. We will be happy to provide you with a copy of the report as soon as it is approved.

AVIATION SAFETY

SENATOR LAUTENBERG: Mr. Del Balzo, you face a dilemma created by the opposing needs to reduce operating costs and to ensure our federal work forces are adequately trained. The National Transportation Safety Board concluded that both air traffic controllers as well as flight crews need better training to deal with the operational realities of new mid-air collision alert technology. For example, although current flight crew training relies on classroom study, videotape presentations, and written tests, NTSB states that none of this training uses simulators or other interactive devices to provide pilots realistic experience in responding to alerts.

I am concerned about TCAS effectiveness if, through a lack of adequate training, pilots and controllers do not use the system as it is intended, as the Safety Board states is possible in its March 25, 1993, report to the FAA. Why have you, through budget tightening, reduced training funds? How are you identifying its dimensions and solutions before it manifests itself in a tragedy?

ANSWER: TCAS training for air traffic controllers is a high priority which has not been impacted by budget tightening. Thus far, our efforts have included mandatory briefings for all controllers. We have also required that each controller read and initial monthly TCAS Update Newsletters. These newsletters contain valuable information on TCAS operational issues that directly effect the air traffic control system.

We have initiated development of a formal TCAS training program specifically designed to meet the needs of the controller work force. The training development effort is guided by a work group which includes airline representatives, air traffic controllers, TCAS developers, and training professionals. This group will ensure that the full scope of the training problem is identified and that the appropriate training solutions are applied. Development of the TCAS controller training program has moved forward rapidly. We expect to field the training program this fiscal year. It will include a comprehensive briefing and a video tape both of which deal with TCAS issues from the controller's perspective.

We have taken action to permanently integrate TCAS training into the air traffic controller training curriculum. Annual TCAS refresher training will be developed which will use simulators and other interactive devices to the extent possible. The FAA Academy will include TCAS training in their classroom lessons and simulation exercises. Finally, we have ensured that new air traffic control simulation systems will have the ability to simulate TCAS events.

SENATOR LAUTENBERG: A second safety policy issue deals with FAA's potential use of flight data recorder information. I understand that a task force including representatives of airline, pilot, aircraft manufacturer, and safety analysis groups recently recommended to FAA that flight data recorder information be used in safety improvement programs. What benefits do you see to having access to this information?

ANSWER: Flight data analysis is being used for improvement of operational safety by more than 25 non-United States (U.S.) airlines. Some of these airlines have been operating such programs for more than 20 years and are convinced that operational safety is improved. Modern transport aircraft offer an opportunity to record a variety of parameters for analysis. The use of these measuring techniques for engine and aircraft condition monitoring of aircraft maintenance and other applications is already commonplace. Operational benefits to having such a program are that data recorded in flight can be collected and analyzed for the purposes of improving flightcrew performance, air carrier training programs and operating procedures, air traffic control procedures, airport maintenance and design, and aircraft operations and design.

SENATOR LAUTENBERG: Do you see disadvantages to collecting and analyzing this information, such as the risk of not being able to maintain the confidentiality of the information and of the government appearing to be "big brother" in the cockpit?

ANSWER: The greatest impediment to such a program in the U.S. is associated with assuring airline management and flightcrews that there is adequate protection of data from use for other than safety and operational improvement purposes. New Federal Aviation Administration policy on compliance and enforcement, and rulemaking, initiated in February of this year, dealing directly with data confidentiality issues, should alleviate airline and flightcrew concerns.

SENATOR LAUTENBERG: Last year, FAA promised to have by the end of the year a computer spreadsheet depicting the status of the airline industry's compliance with FAA's aging aircraft maintenance regulations. Please provide that spreadsheet for the record.

ANSWER: In response to your request for the computer spreadsheet depicting the status of the airline industry's compliance with aging aircraft maintenance regulations, we are providing the following attachment "Aging Airplane Fleet Service Bulletin Status Report," issued in February 1993.

[CLERK'S NOTE.--Due to its size, the document ''Aging Airplane Fleet Service Bulletin Status Report'' does not appear in the hearing but is available for review in the subcommittee files.]

SENATOR LAUTENBERG: Are you satisfied with the industry's progress toward complying with the aging aircraft regulations?

ANSWER. The Flight Standards Service has been tracking the compliance status of the aging aircraft structural modification airworthiness directives (AD). To this date, it is satisfied with the industry's commitment toward compliance with the AD's for 871 aircraft of the surveyed fleet. We are concerned that for the remaining 209 airplanes, industry has indicated its intent to continue operating these airplanes beyond the compliance time.

It should be noted that compliance with the AD's can be accomplished by either completing the required service bulletins or by removing the airplane from service until they are completed. We would be satisfied with either of these alternatives for those remaining airplanes.

UNOBLIGATED BALANCES IN THE FACILITIES AND EQUIPMENT ACCOUNT

SENATOR LAUTENBERG: Unobligated balances in the Facilities and Equipment (F&E) account have continued to grow over the last several years, despite the fact that FAA has estimated that it could obligate an increasing amount of its appropriations in the first year. The unobligated balance at the end of fiscal year 1992 was about $2 billion, or nearly the size of the fiscal year 1992 total F&E appropriation. While a certain level of unobligated balances is understandable, given that F&E is a multi-year appropriation, excessive unobligated balances are disturbing since appropriated funds lay idle. Unobligated balances are often the result of delays in the award of contracts and other procurement events. FAA is estimating that the level of unobligated balances will decrease by the end of fiscal year 1993.

What assurances can FAA provide that its unobligated F&E funds will decrease given the continuing schedule delays in the air traffic control modernization program reported by GAO and others?

ANSWER: The F&E unobligated balance is projected to decrease by $204 million from the end of FY 1992 to the end of FY 1993. This decrease can only be achieved if we incur obligations of $2,554 million during FY 1993. Actual obligations for FY 1992 totalled $2,137 million. Therefore, we are projecting an increase of $417 million in obligations during FY 1993 vs FY 1992. As of April 30, 1993, obligations are $199 million ahead of the same period last year. Therefore, we still believe that our estimate of $2,554 million is achievable. We would also like to point out that schedule delays do not necessarily correlate to unobligated balances. In many instances, schedule delays occur subsequent to obligation of funds.

SENATOR LAUTENBERG: What does FAA consider a reasonable level of unobligated balances as measured against total available appropriations?

ANSWER: The fact that the F&E appropriation is a multi-year account indicates a need to carryover funds from one fiscal year to another to complete certain efforts. It is also a fact of budgeting that, as appropriations rise in a multi-year account, so do unobligated balances. However, it is important to note that F&E appropriations have risen far faster than unobligated balances, indicating that, though unobligated balances have increased, the FAA has been improving its performance in obligating funds. For example from FY 1987 to FY 1992, appropriations rose nearly 200 percent (from $805 million to $2,409 million), while unobligated balances rose by only 67 percent (from $1,184 million to $1,981 million). FY 1992 is the last complete year for which actual data are available. The last five years of actual data indicates that our first year obligation rate has steadily increased from a low of 45 percent up to 60 percent. We will continue to strive to increase our first year obligation rate while at the same time ensuring that the flying public's taxes procure the biggest bang for the buck. Until all efforts are exhausted we don't know what constitutes a reasonable level of unobligated balances, but we believe we are moving in the right direction.

SENATOR LAUTENBERG: FAA has cited as a contributor to unobligated balances an inability to start and process procurement requests before being given budget authority. Does FAA have a mechanism whereby it can start procurement paperwork before it receives budget authority so that it can avoid such delays? If so, how often is it used?

ANSWER: Yes. Although the Anti-Deficiency Act, 31 U.S.C. 1341, precludes the creation of an obligation in excess of funds available or in advance of appropriations, unless authorized by law, it has been determined that the issuance of a solicitation does not fall under this prohibition, because it does not create or authorize an obligation. Only the resulting contract creates such an obligation. Accordingly, the availability of funds.

The FAA incorporates into those solicitations, a notice to bidders that funds are not available for the procurement at the time of solicitation and that the Government's obligation is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. It further states that no legal liability on the part of the Government for any payment may arise until funds are made available to the contracting officer and no contract will be awarded until funds are available.

It is estimated that five to ten percent of high value solicitations are released subject to the availability of funds. This frequently occurs in the last two quarters of the fiscal year for requirements identified for the following fiscal year for which the funds have not been appropriated.

SENATOR LAUTENBERG: F&E fund availability has been shortened from 5 to 3 years beginning with the fiscal year 1992 appropriation. While FAA officials note that this should help eliminate some unobligated funds, this change does not ensure that F&E funds will be obligated in the first year of the appropriation. In the past, much of the unobligated balance has been due to funds not used until the second or third year of the appropriation. How does FAA plan to increase its first year obligation rates so that it can reduce the level of unobligated balances?

ANSWER: As stated in an earlier answer, the FY 1992 first year obligation rate was 60 percent. However, the FY 1992 budget was developed based on a 5 year period of availability. Therefore, we expect to have a higher first year obligation rate in FY 1993 because the budget for that fiscal year was based on a 3 year period of availability. We are also taking steps, beginning with the FY 1995 budget, to subdivide our line item projects into fully funded segments such as site survey and acquisition, construction, equipment acquisition, and installation. This approach will enable us to request budget authority for project segments in the year it should be obligated. Over time, segmented funding should cause our first year obligation rate to increase.

AIRFIELD PAVEMENT

SENATOR LAUTENBERG: Every year, Federal civilian and military agencies, including the Federal Aviation Administration, expend many millions of dollars for new and overlay airfield pavements. The pavement design method, the quality of the materials, and construction practices determine the cost, expected, life, and level of performance of modern airfield pavement.

FAA Advisory Circular 150/5320/6C, CHG2, Appendix II, "Airport Pavement Design and Evaluation", dated December 8, 1987, limits the economic analysis of pavement design to 20 years.

What is the engineering basis for limiting the airfield pavement design to 20 years? Has the 20-year design limit been scientifically validated? If so, when was the validation done, and by whom?

ANSWER: The 20-year design limit is based on judgement considering predictability of usage and initial capital investment. In predictability, a forecast of traffic volume and aircraft type usage must be undertaken. A 20-year horizon is a commonly accepted time frame based on the vagaries of forecasting the future. Longer time frames have been approved by the FAA. For example, the new Denver airport pavements were designed based on 40-year volume and usage forecasts.

In many instances, the pavement has performed well throughout the design period. In general, when the performance is under or over the design life, the difference can be attributed to variations in actual traffic usage and type from predicted traffic. Because actual traffic conditions do not replicate the forecast, it would be very difficult to establish validation that would lead to a high level of confidence.

SENATOR LAUTENBERG: FAA policy limits the maximum Federal participation in airfield pavements to a pavement section designed to serve a 350,000-pound aircraft with a DC-8-50 series landing gear configuration.

When was the policy instituted? What is the legislative or administrative basis for the policy? Has the policy been amended or revised since it was instituted? Is the policy suitable for current operations involving heavier aircraft?

Is the policy suitable for future operations involving even heavier and high performance aircraft?

ANSWER: The 350,000-lbs. dual tandem policy was instituted in 1958 and is still in effect. The policy was established to ensure that the existing infrastructure was not over stressed by future aircraft. The effect of the policy is to require that new airplanes are able to operate on existing facilities. The policy has been suitable until recent advances in aircraft landing gear design. The policy is under review since current FAA pavement design and evaluation methods are inadequate to assess the effects of future advanced landing gear configurations and heavier aircraft on pavement performance. FAA has prepared a research plan to develop methodology capable of analyzing future aircraft gear configurations. It is hoped that any necessary modifications to the policy will be minor.

SENATOR LAUTENBERG: FAA commonly uses asphalt (flexible) and concrete (rigid) pavement. Other types of rigid pavement that have been developed include:

- Continuously Reinforced Concrete Pavement, which allows longer joint spacings and, therefore, less repair and maintenance (the only such pavement in the United States is at Hobby/Houston Airport);
- Jointed Reinforced Concrete Pavement (Dallas/Fort Worth Airport); and
- Post-Tensioned Pavement (one runway at Chicago O'Hare Airport).

What has been FAA's experience with these types of pavement? How have these pavements performed compared with plain concrete pavement? How do the life-cycle costs of these three pavements compare with the life-cycle costs of plain concrete pavement?

Does FAA intend to incorporate these three types of rigid pavement as approved designs to gain more experience on their performance? When will they be incorporated? If these types of pavement are more endurable and require less maintenance than plain concrete pavement, why is FAA not designing and constructing these types of pavement and including them in the bid document?

ANSWER: Although most rigid airport pavements are plain concrete, the FAA has funded other types including Continuously Reinforced Concrete, Jointed Reinforced Concrete and Post-tensioned pavements. Experience has been mixed. In general, these reinforced pavements have not performed markedly better than plain concrete. The FAA does not have sufficient life-cycle cost information for these pavements to make meaningful comparisons to plain concrete.

The FAA has incorporated Jointed Reinforced Concrete in our standard specifications and will shortly add a specification for Continuously Reinforced Concrete. These reinforced pavements are eligible for grant assistance and selection is at the discretion of the airport. With respect to Post-Tensioned Concrete, there has been essentially no demand for its use and consequently FAA has limited experience with this application (at Chicago, O'Hare, the use was limited to an 800-foot overlay of a runway end). The FAA would seriously consider grant applications for use at other airports.

SENATOR LAUTENBERG: European civil aviation authorities use Aircraft Classification Numbers (ACN) and Pavement Classification Numbers (PCN) in their aircraft/airfield operations. The ACN expresses an aircraft's relative loading severity on a pavement supported by a specified subgrade. The PCN is the ACN of the aircraft which imposes a severity of loading equal to the maximum permitted on the pavement for unrestricted use.

What are the advantages and disadvantages of using ACN and PCN? Does FAA have any plans to incorporate ACN and PCN in its operations?

ANSWER: ACN-PCN is a method of correlating aircraft and airport pavement compatibility. If the ACN is less than or equal to the PCN, the aircraft can operate on that pavement without restriction. It was developed by the International Civil Aviation Organization with substantial input from the United States and is used in official FAA publications.

The ACN-PCN provides a simplified method to give one number that defines the approximate load limitation of a pavement. The ACN-PCN number is derived using pavement design and evaluation information. The actual pavement design and evaluation are complex processes which take into consideration many factors and from which the PCN is derived.

LOAN GUARANTEES FOR U.S.- BUILT AIRCRAFT

SENATOR LAUTENBERG: Mr. Del Balzo, a bill has been introduced in the House (H.R. 1433) that would use the Airport and Airway Trust Fund to guarantee loans for Stage 3 aircraft bought by U.S. carriers from U.S. manufacturers.

Are you familiar with this bill and, if so, what are your initial reactions to its merits?

ANSWER: Although I am familiar with the bill, my staff is still in the process of assessing its likely impacts. My initial reaction is that we should allow the free market to determine aircraft manufacturing and demand. The Airport Noise and Capacity Act of 1990 (ANCA), which requires the phaseout of Stage 2 aircraft by the year 2000, is already affecting demand for newer and quieter equipment. If a "carrier" financing problem arises during the remainder of the transition to an all-Stage 3 fleet, then we may need to consider alternatives to address such a problem. Until then, I suggest that we not rush to provide industry financial incentives, especially proposals that could impose further demands on an already shrinking AATF, or promote an undesirable "Buy America" policy that fails to recognize that such a strategy might jeopardize foreign purchases of U.S. products, or have other negative consequences. Since the National Commission to Ensure a Strong Competitive Airline Industry will be examining this issue, I think it would be prudent to await the findings of the Commission before pursuing further legislation of this nature.

Concerning the specific merits of H.R. 1433, I believe it is likely to have only a marginal impact in terms of stimulating new aircraft purchases. Some creditworthy carriers might buy additional aircraft if the finance cost is lower, but few, if any, financially ailing carriers are likely to make use of the provisions. Overall, air carriers that are already buying aircraft would receive a government subsidy. As a result, the number of additional aircraft purchased as a direct result of this program could be only marginal.

A further concern is that the bill could result in the need to reduce future FAA spending, given that a continued draw-down of the AATF is likely under current spending and revenue scenarios, and given the possibility that AATF funds might have to be used to support the loan guarantee program. The uncommitted balance is projected to drop sharply during FY 1993 to $4.4 billion due to increased spending, recent stagnation of tax revenue growth, and the Congressionally-mandated reassignment of $1.8 billion to the General Fund. The DOT budget for FY 1994 is expected to lead to a further reduction in the uncommitted balance to just under $4.0 billion.

In terms of the environment, the bill could provide benefits by encouraging an accelerated retirement of noisier equipment. Additional retirements of such aircraft would ease public concerns and pressures for additional noise regulations and operating restrictions. The noise benefits would be severely limited, however, because: ANCA already requires the phaseout of all Stage 2 aircraft by the year 2000; the latest (12/31/92) operator compliance reports show reasonable progress is being made to meet the requirement; and the bill would permit loans for aircraft which may not be delivered for up to three years following the loan agreement.

If the Government were to undertake a new loan guarantee program, previous FAA experience with loan guarantees would suggest extreme caution. The proposed default provisions in the bill would need to be redrafted and tightened to protect future AATF balances from bad loans.

SENATOR LAUTENBERG: While I am a staunch advocate of reducing aircraft noise using almost any means available, I need some additional background information to help me put this bill in perspective. For example, in these days of relatively low interest rates, what evidence are you aware of that many air carriers are unable to obtain financing at reasonable rates for purchasing new equipment?

ANSWER: While it is true that air carrier bond ratings have been downgraded making conventional borrowing more difficult and expensive, carriers have not been unable to obtain new equipment. Manufacturers have increasingly stepped forward to provide financing, and leasing has become a more popular option. Also, air carriers are seeking foreign investors as possible sources of financing and capital. Contrary to the declared findings of the bill that "many air carriers are increasingly unable to obtain financing at reasonable interest rates for purchasing new aircraft", the bill would likely only assist carriers that are already able to obtain financing for new aircraft. With proper financially conservative loan guarantee standards, the Secretary would not guarantee the loans of financially ailing carriers, notwithstanding the proposed default provisions.

SENATOR LAUTENBERG: Would this bill be creating an artificial demand for new aircraft in return for retiring aircraft that still have useful lives? And what impact might that have on the used aircraft market?

ANSWER: The bill would make new U.S. manufactured aircraft financially more attractive than at present. This would have some negative impact on demand for used aircraft. There are many factors, however, to consider in planning phaseouts of older, less efficient equipment.

Carriers cannot afford to simply de-commission their older, yet very serviceable and valuable equipment unless they expect to reap benefits in excess of the costs. I think it unlikely that a significant number of carrier fleet purchasing and operating decisions would change solely because of attractive interest rates.

QUESTIONS SUBMITTED BY SENATOR SASSER

LIMITED CONSOLIDATION

SENATOR SASSER: The original FAA modernization plan was scheduled to be implemented over 10 years at an estimated cost of approximately $12 billion. Through subsequent modifications, over 150 additional projects were added. And, progress on the Air Traffic Control modernization plan has been bogged down by cost increases on major projects, as well as schedule delays.

As you know, the General Accounting Office has issued a number of reports over the years tracking the status of the modernization effort. The most recent GAO assessment cites an overly ambitious plan as a factor in current Advanced Automation System cost and schedule problems.

In retrospect, was the modernization plan too ambitious?

ANSWER: In retrospect, the original modernization plan was ambitious. FAA underestimated the time to get our F&E contracts in place during the mid-1980's. In addition, our contractors bid overly optimistic schedules which has resulted in some further slippages. During the last 12 years, our average Capital Investment Program has slipped 3-5 years. Most of our programs have now transitioned into the equipment delivery phase and we anticipate some further slippage due to a shortage of trained F&E installation personnel in the field.

SENATOR SASSER: The cost increases and schedule delays in the AAS have been well documented. It is in everyone's best interest to get the project on track. Only recently, however, did the FAA acknowledge that it did not do all that it could or might have done from a top level management perspective to provide project oversight. This is especially true with respect to IBM's problems with the software development for the Initial Sector Suite System (ISSS). FAA has indicated a recent strategy for improving top level management involvement and accountability with respect to progress on the ISSS segment.

In order to get some additional perspective on these recent FAA management changes, it would be helpful if the FAA would provide for the record an historical summary outlining the number of FAA staff and assigned areas of responsibility with respect to the AAS and ISSS.

Also, throughout the history of the modernization effort, there have been several changes at the Administrator's level. To what extent did changes at the

Administrator's level include a formal agency review/risk assessment with respect to status and progress of the modernization plan, and especially the AAS?

ANSWER: An historical summary of authorized AAS staffing in the program office as of January of each year follows. This data does not include the many other organizations within the FAA that also support the AAS program, such as the FAA Technical Center. Changes in staffing during this period include realignment of functions that support AAS in to and out of the program office. AAS staffing has been assigned functionally across all segments of the AAS program, so staffing specifically for the ISSS segment cannot be determined.

Year	Staffing	Year	Staffing
1983	31	1989	55
1984	31	1990	55
1985	31	1991 2/	43
1986	27	1992	43
1987	27	1993	46
1988 1/	53		

1/ The Host program ended and the AAS acquisition phase began.
The implementation function was added to the program office.

2/ The systems engineering function was transferred from the program office to another FAA organization.

SENATOR SASSER: The FAA's initial modernization plan provided for the consolidation of 230 terminals and en route centers. Due to concern regarding the impact of a potential facility failure, FAA has proposed to limit the consolidation. What are the cost and schedule implications of shifting to a limited consolidation plan?

ANSWER: Shifting to limited consolidation does not significantly impact life-cycle costs. It has fewer schedule risks and is expected to realize benefits to users sooner in the life-cycle than waiting for full AAS implementation for the terminal environment.

SENATOR SASSER: In 1981, FAA stated that the then existing equipment would not be able to handle air traffic demand beyond the late 1980's. In recent testimony before the House Transportation Appropriations Subcommittee, the General Accounting Office indicated that FAA cited the inability of the air traffic system to handle increased demand as the basis for its justification for the modernization plan.

As a result, several initiatives subsequently occurred. FAA proposed the overall air traffic control system upgrade. And, in 1987, FAA began several interim support projects to sustain the automation system.

According to the GAO, FAA has not included the cost of interim projects in the overall AAS costs. Absent expenditures on interim support projects, would the then existing equipment have been able to sustain air traffic demand until the AAS was completed? If not, then how are the interim support costs justified outside the overall AAS?

Please provide for the record a detailed description of all interim support projects including cost and schedule data.

ANSWER: Without the interim support projects the existing ARTS II and ARTS III equipment could not have sustained the capacity, functionality, and supportability needs until the AAS was deployed. The following projects have been initiated to sustain air traffic control equipment until new TRACON automation equipment is available.

INTERIM SUPPORT PLAN: Provided ARTS II and ARTS III position equipment, ARTS III solid state memory, and tape/disk drive replacement. Cost - $203.9 million
1st ORD: 9/89 last ORD: 7/94

ARTS IIIE UPGRADE: Upgrade terminal automation from ARTS IIIA to ARTS IIIE at selected TRACONs.
Cost - $61.6 million
1st ORD: 10/96 last ORD: 10/97

ARTS IIA CAPACITY: Provides additional ARTS IIA peripheral processors and MCI capability to increase capacity. Cost - $45.0 million
1st ORD:12/96 last ORD: 12/98

ARTS IIIA CAPACITY: Provides additional ARTS IIIA Input/Output processors to support MCI capability and increase capacity. Cost - $109.8 million
1st ORD: 12/93 last ORD: 12/95

SENATOR SASSER: FAA is proposing to expedite the addition of advanced software functions to coincide with the Initial Sector Suite System segment of the Advanced Automation System. One of the benefits cited is that with the Automated En Route Air Traffic Control, or AERA, controllers would be able to provide aircraft with more fuel-efficient routes.

What is FAA's best estimate of the cost-savings to the airline industry from expediting the availability of advanced software?

ANSWER: The 1987 Mitre study of AERA benefits indicates that the aircraft operators would save approximately 600 million per year in the year 2000. These savings would grow with time as traffic volumes increase. One-half of these savings is attributed to Introductory AERA Services (IAS) and the remainder due to Full AERA Services (FAS). The FAA is exploring the possibility of accelerating AERA by deploying it on ISSS in lieu of waiting for ACCC. Preliminary results indicate that an acceleration of 1-2 years may be feasible. This would result in a savings of 600 million to 1,200 million for the aircraft operators.

SENATOR SASSER: What would be the difference in cost for expediting the advanced software versus implementing AERA as originally planned with the final segment of the AAS.

ANSWER: The cost of the current plan and the revised plan are approximately the same in that they both call for the development of the ACCC (the final segment of AAS) and the AERA functionality. The principal difference is the order in which functions are developed and operationally deployed. The revised deployment strategy will probably cost a little more (not yet quantified) because the functions would not be developed in an optional sequence from a development perspective thereby requiring some code redevelopment.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

GLOBAL POSITIONING SATELLITE (GPS) PROGRAM

SENATOR D'AMATO: I understand that FAA has various agreements with the Defense Department concerning the GPS system. What outstanding inter-agency issues still need to be resolved with respect to costs (to both the agencies and, perhaps the users), control, and operation of the GPS program? What steps are being taken to address these matters?

ANSWER: The FAA entered into two (2) interagency agreements with the Defense Department covering international civil aviation use of GPS ,and the use of the GPS in the National Airspace System (NAS) in May 1990 and 1992, respectively. More recently, in response to accelerating civil demand for GPS services the Secretaries of Transportation and Defense have agreed to examine the operational, technical and institutional implications of increased civil use of the GPS, including civilian aviation. To implement the agreement they have established a Joint DoD/DOT Task Force to identify, address and formulate consensus resolutions to the issues resulting from expanded civil use. The Joint Task Force is currently in operation and will prepare and submit a report to the Secretaries by November 1, 1993, describing options considered, providing recommendations, and suggesting implementation actions.

FAA ACQUISITION MANAGEMENT

SENATOR D'AMATO: What steps is FAA taking to strengthen its acquisition management?

ANSWER: The FAA is in the midst of a major and continuing effort to strengthen its acquisition management. The following are among the initiatives now in place:

- established a single program manager, chartered by and responsible to the FAA Administrator for the execution of each major acquisition program;
- established matrix management to provide program managers with technical expertise in such acquisition management disciplines as logistics support, test and evaluation, configuration management, contracting, and quality assurance;

- established the Acquisition Review Committee (ARC) to advise the acquisition executive on the readiness of acquisition programs to transition from one acquisition phase to another;
- established an independent operational test and evaluation organization to assess the operational suitability and effectiveness of major acquisition programs at each key decision point and report findings directly to the Administrator;
- issued a comprehensive directive defining and requiring compliance with FAA acquisition policy (Order 1810.1F, Acquisition Policy);
- issued a directive establishing management and configuration control over acquisition policy (Order 1810.7, Management of Acquisition Policy);
- issued a directive (Order 1810.6, Nondevelopmental Items) requiring maximum use of nondevelopmental hardware and software to satisfy mission requirements when such products meet user/sponsor needs and are cost-effective over their life cycle; and
- established mandatory, continuing training for all program managers and essential program management team members including a 4-week course adapted from and equivalent to the 19-week defense systems acquisition management course offered by the Defense Systems Management College.

The following are initiatives now underway:

- establish a process and instructions for developing sound, well-defined system specifications that include only essential requirements;
- expand acquisition management training to include mandatory courses on source selection procedures for source evaluation board members and on the management of software-intensive projects for program management team members;
- develop a user-friendly, computer-based user tool accessible to program management team members that can be used to structure and execute acquisition programs in accordance with FAA acquisition policy; and
- develop an automated, expert system that can be used to plan logistics strategy, establish a milestone schedule, and create an integrated logistics support plan.

SENATOR D'AMATO: GAO has recommended that FAA follow the Office of Management and Budget procurement guidance known as Circular A-109. A-109 contains five strict, phased-in steps to reduce problems, delays, and costs in acquiring major systems. Has FAA agreed to do this?

ANSWER: Yes. The FAA now operates under a comprehensive policy directive (Order 1810.1F, Acquisition Policy) that requires acquisition programs to proceed through the acquisition phases of OMB Circular A-109. Acquisition phases are separated by key decision points at which the acquisition executive assesses the readiness of acquisition programs to proceed to the next appropriate acquisition phase. A decision to proceed is based on such factors as achievement of exit criteria from the previous acquisition phase, revalidation of mission need by the sponsoring community, a determination that the program is affordable and will satisfy mission need, approval of an acquisition strategy for the next acquisition phase, and agreement on critical exit criteria to be achieved during the next acquisition phase.

SENATOR D'AMATO: Why has FAA failed to complete development and operational testing of new equipment prior to committing to production especially where new software is concerned? (Example: the Advanced Automation System)

ANSWER: Development and production of complex systems involves a series of tradeoffs of competing factors. In theory, development and operational testing would be completed and all reports completed before production would be contemplated, resulting in very low technical risk. In the real world this would result in the decision for production being made when the technology has become essentially obsolescent and the schedule extended such that significant benefits available from the new system have been foregone. By waiting until testing is complete the program schedule would be extended by years due to the elimination of concurrency in the schedule. By trading some concurrency in program schedules and risk for time systems can be delivered earlier, services provided, and benefits realized.

The FAA generally performs all developmental testing and a subset of operational testing before requesting authority for production. In order to perform operational, and some portions of developmental testing software must have operational hardware to run on. The FAA does not generally wait until all the details of operational test reports are complete and approved before requesting production approval. AAS has not yet requested production authority for any segment except PAMRI, where production was initiated after successful DT&E and deployment was authorized at the deployment readiness review.

FAA AIRCRAFT DEICING

SENATOR D'AMATO: What is the FAA doing to work with private companies who have developed deicing systems or equipment?

ANSWER: A broad agency announcement has been issued to solicit proposals for research into aircraft ground deicing. Technical and cost proposals are to be submitted by February 16, 1994, for research on deicing fluid effectiveness and technologies for detection of ice formations.

SENATOR D'AMATO: If such systems or equipment meet FAA standards, will the FAA "certify" them as meeting with its approval?

ANSWER: The FAA does not intend to certify ground based deicing or anti-icing systems or equipment. It is the responsibility of each aircraft operator to ensure that his/her aircraft is free of contamination before takeoff. This can be accomplished by a range of methodologies from heated hangers to the use of remotely located, computer operated gantry systems.

SENATOR D'AMATO: If the FAA does not have such standards for deicing equipment, are airport and/or airlines charged with the responsibility for choosing systems or equipment that are adequate?

ANSWER: Each aircraft operator must select the most efficient and effective methodology to ensure aircraft are free of contamination prior to takeoff. If deicing equipment is provided by the airport using Airport Improvement Program (AIP) grant funding, this equipment will have to meet standards coordinated with the airline industry and approved by FAA.

SENATOR D'AMATO: Are Airport Improvement Program (AIP) grant funds being made available for deicing systems or programs? If an appropriate AIP grantee wishes to purchase such a system or equipment, must the FAA first act to approve the deicing system or equipment?

ANSWER: Yes, AIP funds are available for construction or acquisition of airplane deicing facilities by eligible airport sponsors. At this time, we are aware of just one project, acquisition of a deicing truck, that is under grant. If an airport sponsor wishes to request AIP funding for such a project, it must first obtain agreement from air lines or other aeronautical users of the airport that they will use the facilities the airport provides. The airport may then solicit bids from interested parties and use AIP grant funds to acquire the deicing system or equipment from the lowest bidder, provided that the system or equipment performs in accordance with standards that will be developed in coordination with industry. We anticipate additional requests for grant assistance as airports begin to finalize deicing operations plans.

SENATOR D'AMATO: Is FAA reviewing different deicing systems or equipment in order to determine if they will be approved as AIP-eligible?

ANSWER: The FAA generally does not approve individual pieces of equipment to determine acceptability for purchase under the AIP. Rather, the FAA develops and publishes standards that must be used in the procurement of such equipment. Any equipment that meets deicing performance standards may be acquired by an airport sponsor using AIP funds, provided that all normal AIP-related procurement requirements are met. Sponsors, as they review bids, should ensure that bidders can provide acceptable equipment. The FAA has not yet developed deicing equipment standards for AIP eligibility but will be working with the airline industry to develop these performance standards.

SENATOR D'AMATO: How much has FAA obligated during Fiscal Year 1993 for deicing research and development?

What does FAA anticipate spending in Fiscal Year 1994 on this area?

ANSWER: To date, a total of $100 thousand has been obligated in FY 1993 for deicing research and development; an additional $2.8 million is anticipated to be obligated by fiscal year end. These funds will provide ongoing deicing and related research into FY 1994. An additional $450 thousand is planned for award in FY 1994.

SENATOR D'AMATO: When does FAA anticipate issuing final deicing rules?

ANSWER: The FAA is currently reviewing the comments received on the interim final rule. After that analysis, we anticipate the final deicing rule will be issued by November 1, 1993. We are also using those comments as a basis of experience to consider extending to the commuter/air taxi operators any favorable "lessons learned" during the last winter deicing season. We plan to have both of these actions resolved before the "next icing season."

QUESTIONS SUBMITTED BY SENATOR DOMENICI

ROSWELL RADAR

SENATOR DOMENICI: Congress has appropriated funds for the emplacement of an ASR-9 radar to service the Roswell airport. The FAA, the City of Roswell and various other interest groups have been examining the optimum operational arrangement for the system. Currently the three options are: 1) stand alone in Roswell, 2) remote to Albuquerque and 3) remote to Lubbock.

The establishment of radar coverage at Roswell Industrial Air Center is an issue of very significant interest to my constituents in Roswell. Therefore, I am very concerned that I have been unable to get accurate, reliable and timely information from your organization on this issue. In January of this year, FAA officials provided information on the technical feasibility of the various options which subsequently was refuted by both air traffic technicians and the manufacturer of the equipment. On 29 January, I sent a letter to you, Mr. Del Balzo, asking for an explanation of the apparent shortcomings in the FAA information provided earlier in the month and raising several other questions. To date, and despite several calls by my staff to FAA contacts, I regret to say that I still have not had the courtesy of a response.

So, please let me try to get some information on this topic now.

There have been several concerns raised about the safety implications of remoting radar service to hub locations, particularly vulnerability of transmission lines to outages and the lack of familiarity and responsiveness of remote radar operators with local conditions and operational necessities. My understanding is that there have recently been several breakdowns in transmission lines which have stopped radar coverage at other remote locations for extended periods of time. Has the FAA examined these safety issues in detail?

ANSWER: The FAA has extensive experience in remoting radar service over transmission lines which are often hundreds of miles long. Although there have been infrequent interruptions to individual transmission circuits in the past, FAA continues to reduce or eliminate the vulnerability. Specifically, the entire network of leased services is currently being replaced by the Leased Interfacility NAS Communications System (LINCS), which will greatly improve the reliability of leased circuits through the use of extensive diversity. Also, in many cases the FAA-owned Radio Communications Link (RCL) microwave system is now used to supplement leased services. Dial-up circuits are often used as another level of back-up for critical connections. This combination of strategies will essentially remove any telecommunications vulnerability associated with remoting of radar service.

The air traffic controllers at the Lubbock, Texas, terminal radar approach control are fully trained and proficient in all procedures and operational requirements to absorb the Roswell operation. The distance of the site from which radar services are provided to the radar sensor has no bearing on the quality of the service to be provided.

SENATOR DOMENICI: If the Roswell radar is remoted to Lubbock, Roswell will receive ground control from its own tower, approach control from Lubbock (which is in the Fort Worth ARTCC region) and ARTCC control and administrative/logistic/management oversight from Albuquerque. When the FAA makes a determination to remote radar service, does it consider such factors as ARTCC and hub boundaries in an effort to avoid confusing cross-border responsibilities and diluted supervisory authority which can have seriously dilatory effects on operations?

ANSWER: Airspace boundaries are based on a well defined area necessary for an air traffic control facility to provide safe, efficient, and effective air traffic control services for a specific location of a designated area.

The supervisory and administrative functions at Roswell ATCT will remain at Roswell Industrial Air Center Airport. The air traffic terminal hub facility at Albuquerque, New Mexico will continue to provide administrative support, first and second line supervisory guidance, and training support for Roswell. Logistic support for all Southwest Region facilities is handled from the regional office at Fort Worth, Texas.

SENATOR DOMENICI: Has the FAA yet determined, as the system manufacturer indicates is the case, that it is, after all, technically feasible for the ASR-9 to be remoted to Albuquerque? If not, when can we anticipate that answer?

ANSWER: It is technically feasible for the Roswell ASR-9 to be remoted to Albuquerque terminal radar approach control. However, the cost of this alternative is approximately $3 million greater than remoting to Lubbock, primarily because additional equipment would have to be procured. The automated radar terminal system at Albuquerque does not have adequate capacity to absorb the additional radar from Roswell. Also, that equipment is not immediately available. Remoting to Lubbock would allow radar services to be available to the Roswell aviation community a year before Albuquerque could be commissioned.

SENATOR DOMENICI: Assuming that remoting to Albuquerque is technically feasible, as we believe the case to be, when can we anticipate seeing a cost comparison of the three alternatives?

ANSWER: A cost analysis has been accomplished to determine the optimum site from which to provide radar services to Roswell. Three alternatives were studied: remote data from the Roswell surveillance radar sensor to the Lubbock, Texas terminal radar approach control (TRACON); remote data from the Roswell sensor to the Albuquerque, New Mexico TRACON; or establish a low activity radar tower in Roswell. The Albuquerque alternative was the most costly at almost $3 million higher than the Lubbock alternative. The results of the analysis will be provided to the Committee.

SENATOR DOMENICI: What criteria were used to determine that the Moses Lake, Washington ASR-9, which services an airfield very similar in mission to Roswell Airport, would be operated as a stand alone facility rather than being remoted to a larger hub? How do these criteria differ from the situation at Roswell?

ANSWER: Many years ago when Larson Air Force Base was closed and was converted to Moses Lake Airport, Congress directed that FAA provide approach control services at Moses Lake. The radar approach control services at Moses Lake also provides radar control services for the Moses Lake Municipal Airport. All airports are subjected to cost/benefits and quality of service considerations before being considered for new establishment or replacement of air traffic services.

SENATOR DOMENICI: To what extent is the dramatic decline in air traffic and aviation training in Harlingen, Texas, a function of the initiation of remoted radar coverage at that location?

ANSWER: The decline of air traffic and aviation in the Harlingen area was impacted by the Confederate Air Force moving their museum, air operations, and airshow activities to Midland, Texas. The decline in petrochemical associated activities throughout Texas also contributed to the decline in air traffic. The Harlingen air traffic control tower has always been a visual flight rules tower with the approach control being worked from other locations. Brownsville non-radar approach control was responsible for Harlingen airspace prior to being remoted to Corpus Christi, Texas.

FAA AIRPORT FUNDING

SENATOR DOMENICI: New Mexico, with its broad expanse of territory and limited major airline scheduled carrier service -- Albuquerque is our only facility providing this type of service -- has significant needs in the area of airport improvement projects. I am advised that the state is now prepared to provide $22 million in matching funds to pair with FAA funding.

Albuquerque International Airport has sought funding for major renovation project involving its Taxiway A and ancillary facilities. With a total projected cost of $26.2 million over FY 93 and FY 94, the project is now underway. As the single major scheduled airline airport in the state, this critical renovation at Albuquerque International will have serious implications throughout the region if it is for some reason interrupted or delayed.

Artesia Airport has also submitted its preapplication for Airport Improvement Program funding. In November, I was advised by the FAA that it was optimistic that FY 93 money would be available to begin work on the most urgent items on the city's request.

In addition, AIP projects are now planned at Truth or Consequences, Deming, Roswell and Dona Ana County Airports.

While funds are available to meet the FY '93 requirements for the Taxiway A upgrade and ancillary projects at Albuquerque International Airport, do you anticipate any problem delivering the FY '94 portion of the FAA funding?

ANSWER: The fiscal year 1994 portion of the taxiway A upgrade and ancillary projects as requested by Albuquerque is $8,574,243 in Federal funds. The FAA plans to provide funding for this project with sponsor entitlement and military airport program discretionary funding in fiscal year 1994. The level will depend on the amount and type of funding available and the competition for these funds. This, of course, is dependent on legislation being enacted authorizing an airport grant program in fiscal year 1994.

SENATOR DOMENICI: What is the current status of Airport Improvement Program funding for the Artesia, Truth or Consequences, Deming, Roswell and Dona Ana County projects?

ANSWER: The current status of Airport Improvement Program funding for the above airports is as follows:

AIP projects approved during fiscal year 1993 to date:

Location	Federal Funds
Truth or Consequences Work: Overlay runway	$ 405,815

Roswell	$ 390,373

Work: Rehabilitate Taxiways (Phase II)

The FAA advised Senator Domenici in a letter dated November 24, 1992, that "we are optimistic that fiscal year 1993 AIP monies will be available to begin work on the most urgent items in the city's request" for Artesia Airport. This location has not been funded to date because there have been higher priority projects funded with the State apportionment funds available for New Mexico during fiscal year 1993, as agreed to by the State and the FAA, and the demand for discretionary funds exceeds the amount available. The Southwest Region, however, will keep Artesia's request and the requests listed below under continuous review for funding consideration as future priorities and fund availability allow.

Requests for federal aid:

The FAA has received requests for federal aid as listed below for airport improvements for Artesia, Truth or Consequences, Deming, Roswell, Las Cruces, and Santa Teresa:

Artesia	$4,079,790
Truth or Consequences	$1,852,177
Roswell	$1,161,900
Las Cruces	$3,725,265
Santa Teresa	$7,285,832
Deming	$1,208,713

AGING AIRCRAFT NONDESTRUCTIVE INSPECTION DEVELOPMENT AND DEMONSTRATION CENTER

SENATOR DOMENICI: It is my pleasure to welcome you Mr. Del Balzo, and to have the opportunity to discuss the Administration's FY 1994 budget request for the Federal Aviation Administration.

Over the past three years, I have been pleased to work with the distinguished Subcommittee Chairman and Ranking Member, as well as Department of Transportation and the Federal Aviation Administration (FAA) officials on a very important and immediate issue -- the safety of aging aircraft. I was pleased to discuss this matter with the distinguished Secretary of Transportation, Mr. Peña, when he was before the Subcommittee this past month. As you may know, Mr. Del Balzo, we have begun to see the serious implications of an aging fleet of aircraft. U.S. airlines are now operating the oldest fleets in aviation history with the average age of the fleet of approximately 3,300 airplanes, being 13 years. One-third of these planes are actually 20 years of older. They have, in fact, reached their designed economic life.

I am pleased to report that the FAA Aging Aircraft Nondestructive Inspection Development and Demonstration Center in Albuquerque is now officially in operation. I was extremely pleased to be at the official opening of the center this last February, and I am very excited that we have the opportunity to establish a world-class center to:

- develop and demonstrate nondestructive inspection techniques on aging aircraft;
- provide assessments of both the reliability of proposed inspection techniques and cost benefits that can be derived by their use by the aviation industry; and
- validate the NDI processes developed throughout the FAA's overall program and transfer them to industry use.

I hope that you will continue the Administration's valuable support for this innovative project. I want to commend the FAA for its support for the project on a multi-year basis. I am pleased that the FAA and Sandia National Laboratories in Albuquerque, along with the University of New Mexico and industry, the Science Applications International Corporation (SAIC), have established a good working relationship that seeks to meet the needs and interests of the aviation industry.

Mr. Del Balzo, does the FY 1994 budget for the Federal Aviation include the necessary funding to continue the collaboration on the Aging Aircraft NDI Center? If so, what is the requested funding level for this initiative?

ANSWER: Yes. The FY 1994 budget includes $3 million to continue the current collaboration on the Aging Aircraft NDI Validation Center (AANC) operated by the Sandia National Laboratories on behalf of the Federal Aviation Administration.

SENATOR DOMENICI: The Congress and the Administration have placed significant focus on the economic health of the aviation industry, establishing a commission to assess its viability. As part of that initiative, will the Administration be looking at ways to help the industry remain competitive?

ANSWER: The Aging Aircraft NDI Validation Center (AANC) validation and reliability enhancement procedures will accelerate technology transition from applied nondestructive evaluation science research into the industrial arena. The potential savings in inspection methodologies may save the airlines operating costs and thus contribute to their economic well-being.

SENATOR DOMENICI: I believe that efforts like the Aging Aircraft Center in New Mexico, which seeks to bring new technology and efficiency to aircraft inspections, has the potential to save the airlines operating costs and contribute to their continued economic viability. Do you see such initiatives as aiding the aviation industry in the long term?

ANSWER: The innovations as well as the validation of nondestructive evaluation technology carried out at the AANC has the potential of aiding the aviation industry in the long term.

STREAMLINING EFFORTS WITHIN THE FAA

SENATOR DOMENICI: Secretary Peña has reiterated on several occasions his commitment to the President's streamlining proposal to reduce the number of federal employees by 100,000 -- or approximately 4 percent by the end of FY 1995.

Mr. Del Balzo, would you address how this streamlining will be accomplished within the FAA? Do you anticipate a reduction in the current number of employees or simply in the number of authorized positions in your agency?

ANSWER: The FAA is committed to meeting the President's goals to reduce the number of government employees. For this reason, we are looking at the way we do business. We are in the process of identifying areas that could operate more efficiently with fewer people. Our plan at this time is to reduce the number of on-board personnel. We do not think it will be necessary to have a reduction in force. We expect to meet the President's goals through attrition and still adequately cover our safety related workforce. However, attrition will leave imbalances in the workforce that will have to be managed over the next several years.

SENATOR DOMENICI: The Administration has requested an appropriation that effectively freezes the FAA operations account. How can you achieve a reduction in your workforce and yet support a growing demand on your services?

ANSWER: As stated earlier, we are looking for efficiencies in the way we do business.

Background:

The President's budget assumes a reduction of 2800 full-time equivalents from the 1993 base number of 71,100 positions in the Department of Transportation. The 1993 base number is consistent with 1993 appropriations, although DOT currently has only 70,000 FTE employees.

QUESTION SUBMITTED BY SENATOR LEVIN

MARQUETTE, MICHIGAN AUXILIARY FSS

SENATOR LEVIN: In 1991, FAA had plans to develop 30 Auxiliary Flight Stations. One of these was supposed to be located near Marquette, Michigan, on the upper peninsula. Having accurate and up-to-date weather information up there is important because weather is so volatile that air safety is a real issue. I understand that Marquette is the only one of the 30 that has no flight service station at the present time. Although the Marquette station was supposed to be installed in August 1992, FAA put it off until 1993, and now even 1994 is uncertain.

Mr. Del Balzo, what is the status of this Auxiliary Flight Service Station? Can you give us a firm date for when this Station will be available?

ANSWER: We have been able to maintain accurate and up-to-date weather information for the Marquette, Michigan, area by using several means. There is a 24-hour-a-day contract weather observer recording and disseminating those reports; also, the airport is equipped with an Automated Weather Observing System (AWOS-3) which assists the human observer operating 24 hours a day. In addition, the AWOS-3 provides continuous weather information via commercial telephone lines and over local radio frequency.

In the FAA's report to Congress on the Auxiliary Flight Service Station Plan the funding requirements were identified. Funds have not been appropriated in the FAA budget to implement the Auxiliary Flight Service program. No firm date has been determined for implementation of the auxiliary FSS at Marquette, Michigan.

QUESTION SUBMITTED BY SENATOR GORTON

PANGBORN AIRPORT CONTRACT TOWER

SENATOR GORTON: In the FY 1993 Transportation Appropriations bill, funding for four contract towers, including one for Pangborn Airport in Wenatchee, Washington, was included in the Facilities and Equipment account. Language was also included in the FAA authorization bill making it clear that the FAA has the authority to enter into sole source contracting. This project has been met with considerable delay, and to date, the grant agreement and other paperwork necessary for Pangborn to receive the funding has not been completed. Could you please provide me with an update on the project? What is the cause of the delay? When do you expect the necessary paperwork will be completed and sent to Pangborn Airport? When do you expect Pangborn Airport will receive the funding so they can begin construction?

ANSWER: The delay was due to having no established procedures for providing grants for tower construction from the facilities and equipment account, these funds would normally come from the airport grants program. Procedures and paperwork had to be improvised for this purpose. FAA personnel from the Northwest Mountain regional office have met with officials from Pangborn Airport to discuss releasing the $1 million to Pangborn Airport for construction of a control tower. At the present time, the Pangborn Airport officials do not have a plan in place for using the $1 million for construction of a control tower. When the Pangborn Airport officials present their plan for tower construction, the funds will be released to them.

GENERAL ACCOUNTING OFFICE

QUESTIONS SUBMITTED BY SENATOR SASSER

ADVANCED AUTOMATION SYSTEM

SENATOR SASSER: In March, the FAA indicated a change in top level management's focus to address ongoing software problems with the Initial Sector Suite System (ISSS). The GAO has conducted a number of reviews tracking the status of the overall modernization effort, but especially the challenges impeding progress on the AAS. In April 1992, the Volpe Center issued a report recommending that FAA increase the number of staff positions within the software development branch of the project. Does GAO have any data outlining FAA staff levels and areas of assigned responsibility from the inception of the project to date?

ANSWER: The management structure of the Advanced Automation System (AAS) Program Office is currently being reorganized. The most recent data provided to us by FAA indicate that the Office of the Program Manager and the Program Management Staff consisted of 21 full time permanent (FTP) positions. Staffing of the other components of the Program Office was as follows:

System Development Branch: 7 positions
Hardware Development Branch: 4 positions
Software Development Branch: 7 positions
Implementation Branch: 8 positions
Contract Officer's Technical Representative & Segment Management Branch: 4 positions

It should be noted that these numbers reflect only the staff working directly for the Program Office. FAA uses a matrix management system; therefore, many other people work on AAS but are not included in the Program Office's staffing level. We do not have historical staffing data, and the Program Office was not able to provide us with this type of information.

As noted in your question, the Volpe Center, in its 1992 report, recommended that FAA increase the number of staff positions within the project office's software development branch from three to between six and eight people. FAA has subsequently added two staff members to this branch. As noted above, this branch currently has seven total FTPs.

SENATOR SASSER: Notwithstanding the recent FAA management initiative, does GAO have any specific data that can reflect how the various Administrators of the FAA addressed the AAS project?

ANSWER: Provided below is a listing of the Administrators and Acting Administrators at FAA since the inception of the AAS project in 1981.

1981-1/84	J. Lynn Helms
1/84-4/84	Michael J. Fenello (Acting)
4/84-7/87	Donald D. Engen
7/87	Robert Whittington (Acting)
7/87-2/89	T. Allan McArtor
2/89-6/89	Robert Whittington (Acting)
6/89-12/91	James B. Busey IV
12/91-6/92	Barry L. Harris (Acting)
6/92-1/93	Thomas C. Richards
1/93-present	Joseph M. Del Balzo (Acting)

The project that would become AAS, as well as the rest of FAA's National Airspace Modernization Plan project, were initiated in 1981 during the term of Administrator J. Lynn Helms.

Over the next 2 years, FAA refined its plans under Administrator Helms, and in 1983 introduced the AAS project in a form similar to today's plan. At that time, the total cost estimate for AAS was $2.5 billion and completion was scheduled for 1996.

In August 1984, during the term of Administrator Donald T. Engen, the FAA awarded competitive design contracts to IBM and Hughes Aircraft Company. In 1988, during the term of Administrator T. Allan McArtor, FAA selected IBM as the winner of the design competition and awarded a contract to the company to complete the development and production of AAS. When the contract with IBM was signed in 1988, FAA estimated the project would cost $4.8 billion and be completed in 1998.

Less than a year after IBM began work on the contract, FAA and IBM realized that the schedule could not be met. In December 1990, when the Administrator was James B. Busey IV, FAA finalized a contract modification that delayed a key segment of AAS (the ISSS segment) by 19 months. Five months of that delay were due to changes in AAS required by FAA, and the remaining 14 months were attributed to IBM's problems in developing software. Acquisition reform to eliminate such problems was a main focus of Administrator Busey's tenure at FAA. During that time, he established a separate acquisition management office at the agency.

In a September 1992 report on AAS (during the term of Administrator Thomas C. Richards) GAO stated that the estimated cost of the project had risen to $5.1 billion and that the estimated completion date had slipped to 2002.

In November 1992, IBM announced an additional 14-month delay in ISSS because the company could not meet the schedule for factory testing. In response, FAA (under the leadership of Administrator Richards) sent a "cure" notice to IBM stating that the proposed delay was detrimental to the agency and that FAA might terminate the contract if IBM did not provide an adequate plan for addressing the problems. IBM responded with a plan in December 1992.

In January 1993, Joseph M. Del Balzo became the Acting Administrator. Mr. Del Balzo is currently working with IBM to develop a new plan and new schedules for the AAS project. Under Mr. Del Balzo, FAA also initiated management initiatives, including (1) elevating the AAS project by having the program director report directly to the Administrator, (2) establishing separate program managers for each of the segments of the AAS project, and (3) establishing a dedicated ISSS team on-site at IBM.

SENATOR SASSER: GAO's most recent review of problems associated with the AAS expressed some concern regarding the extent to which FAA has relied on costly interim support projects. Based on GAO's extensive reviews, have all of the interim projects been justified or necessary to sustain the current Air Traffic Control system?

ANSWER: We have not reviewed all projects that could be defined as "interim" to AAS. However, we did review the largest interim project, the $435 million Interim Support Program (ISP). In the case of the ISP, we reported in September 1990 that FAA had not adequately identified its requirements for this project and did not conduct a requirements analysis as called for by federal regulations and the agency's own procedures. All funds for ISP were appropriated by fiscal year 1993. FAA anticipates completing the project by the mid 1990s.

AIR TRANSPORT ASSOCIATION

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

AAS PROGRESS

Senator Lautenberg. Mr. Ryan, you discuss the need within the FAA for an internal advocate to stand up for the needs of airspace users. You apparently believe that these needs have not been adequately addressed and reflected in the design or development of various modernization projects.

Question: Will the procurement reforms recently implemented by FAA mitigate this problem, or do you still believe that FAA should do more? If so, can you give us some examples of the obstacles you refer to that impede timely deployment.

Answer: There is no evidence that FAA procurement reforms have improved the FAA's ability to procure and field systems.

In some instances the FAA could and should use its sole source procurement authority to expedite acquisition, but seems to lack the courage and encouragement of top management to do so.

We recommended an internal advocate for airspace users so that we could be kept abreast of the status of vital projects such as AAS, VSCS and GPS/Data link. ATA believes that the input and support FAA solicited and received from airspace users earlier this year concerning the AAS program is a model for how continuing advice should be obtained by FAA from users on AAS and other FAA programs.

ATA doesn't want its support and advice sought just when a program is in trouble and the FAA is seeking a champion.

ATA's testimony provides several broad recommendations that FAA proceed "rapidly and aggressively" in developing practically all major segments of the AAS.

- Do you make these recommendations because you believe that FAA is dragging its feet in these areas, and if so, what supports your belief?

- What specifically would you have FAA do differently?

Answer: I do not believe FAA is dragging its feet NOW. However, I am concerned that the scrutiny and concern that FAA top management has given the AAS program since the "Cure" letter to IBM in November 1992 will diminish with time and that the program will lose the impetus that it presently has.

The AAS program with AERA must be moved forward at an accelerated pace. FAA controllers and maintenance technicians need new software and hardware to replace equipment that is over 20 years old.

U.S. airlines need the over $300 M a year that can be saved in shorter routes through the provision of new controller functions such as conflict probe available in the AERA software available in the AAS.

ATA strongly suggests that FAA provide regular reviews of major programs with the user community. These reviews would provide the vehicle for input and frank discussion on problems.

SUBCOMMITTEE RECESS

Senator LAUTENBERG. With that, the hearing of this Subcommittee on Transportation is recessed. We thank you very much for your testimony.

The next meeting of this subcommittee is a hearing with the U.S. Coast Guard on Thursday, May 13, at 10 a.m., in SD–138. The issue is marine safety.

[Whereupon, at 4:33 p.m., Wednesday, May 5, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 13.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1994

THURSDAY, MAY 13, 1993

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg and Stevens.

DEPARTMENT OF TRANSPORTATION

U.S. COAST GUARD

STATEMENT OF ADM. J. WILLIAM KIME, COMMANDANT

ACCOMPANIED BY:
CAPT. THOMAS H. COLLINS, CHIEF, PROGRAMS DIVISION
CAPT. ROY J. CASTO, CHIEF, BUDGET DIVISION

OPENING REMARKS

Senator LAUTENBERG. We will call the subcommittee to order.

Today we are going to hear testimony from the U.S. Coast Guard regarding marine environmental protection, marine safety, as well as its budget request for fiscal year 1994.

We are, as for the past couple of years, pleased to welcome Admiral Kime, the Coast Guard Commandant, and associates. Admiral Kime is an expert in all three of the areas that we are going to be discussing today. And, as he has so diligently pursued his tasks as he enters this last year of his term of Commandant, I am sure that we will see just as much vigor. As I will tell you all later, a new piece of legislation I am introducing will fall under the regime that Admiral Kime will be managing.

Memorial Day is just weeks away. And the beach season is upon us. And, soon, millions of U.S. citizens will gravitate toward the coast to enjoy one of our Nation's most precious natural resources—the seashore. Among its many responsibilities, the Coast Guard works to keep our seashore not only safe, but clean.

The New Jersey shore is the driving force behind New Jersey's $18 billion tourism sector, which is the State's second largest revenue-producing industry. In 1991, almost 9 million people stayed overnight at the seashore. And an additional 59 million made day trips to New Jersey's beaches. Furthermore, 353,000 people worked to service these visitors in some capacity, making the tourism industry the No. 1 employer in my State. And while there are many issues facing our shore today, one continuing concern is the cleanliness of the beaches. No one wants to take their family to a beach littered with bottles, cans, and all sorts of trash.

I have participated in nationally sponsored beach cleanup events in New Jersey on a number of occasions. With other volunteers, I picked up trash that washes up on the New Jersey shores. So I have seen the debris and plastic that winds up on our shore. It is an ugly sight. And there is plenty of it—bags and bags, barrels and barrels, tons and tons. By collecting and analyzing this debris, we know that medical waste no longer makes up a large percentage of the litter that we collect. This is evidence that the programs put in place after the disaster that forced beach closures in 1988, are working.

Less progress, however, has been made in preventing ships from dumping waste overboard. While volunteers in New Jersey during the last 4 years noted a slight decrease in the percentage of total waste found on the beaches, which is clearly shipborne, much remains to be done before we can assure the public that visiting our beaches and swimming in our ocean will always be a safe and pleasurable experience.

Now, for many years, I have voiced concern regarding the Coast Guard's efforts to adequately pursue their mission to keep marine traffic from dumping trash into our waters that can wash up on our beaches. Over the last several years, I have worked to provide the Coast Guard not only the resources, but sufficient statutory authority to simultaneously ensure safety on our seas and the protection of our environment. It is time to ask the critical questions as to whether or not we are getting adequate payback for our investments in these areas.

Last spring, I conducted a hearing through the Environment and Public Works Committee on the implementation of the Marine Plastic Pollution Research and Control Act. I was the primary Senate sponsor of the original legislation enacted back in 1987. The law prohibits the dumping of plastics and restricts the dumping of other garbage in the ocean. The act responds to the pervasive threat that plastics pose to our oceans, to our marine life and to the cleanliness of our shore.

It was clear at that time that much more needed to be done to ensure compliance with the act. Moreover, it was also clear that additional statutory authorities could enhance the Coast Guard's capability to protect our waters from overboard waste. And today, I am pleased to announce my introduction of the Marine Plastic Pollution Research and Control Act Amendments of 1993. This bill will serve to improve upon the Coast Guard's current efforts at pollution prevention, as well as give it the tools to adequately penalize, to enforce the law with those ships and nations who are thumbing their noses at international pollution prevention treaties.

This morning, we will pursue the efforts of the Coast Guard, along with the Department of Justice in this area, to send a very strong message to the shipping industry that illegal dumping will not be tolerated. Similarly, this morning, we will discuss the need to enhance enforcement of several safety laws and treaties among ships, both U.S. and foreign, that travel through America's waters.

Increasingly, it appears that world shipping companies are extending the life of already-aged ships without the necessary investments in maintenance and safety. And these substandard ships ply our waters every day, and pose a significant threat to our marine environment and to the communities that surround our shore.

While the Coast Guard has primary responsibility to ensure the safety of such ships, the current international safety regime places a great deal of responsibility on each ship's flag State and classification society to ensure the basic international safety codes are being met.

Just last year, however, the Coast Guard's Chief of Marine Safety, Security and Environmental Protection admitted that less than one-quarter of the Nation's classification societies are doing an adequate job, and some are little more than "Tinkertoy" classification societies, that would not hesitate to certify a ham sandwich. Such a situation cannot be allowed to persist. It is time to ask the question why we allow substandard ships, whose safety is guaranteed by substandard flag administrations, to enter our waters.

While the Coast Guard is pursuing these issues with the International Maritime Organization, it may be years, if not decades, based on earlier records, before the international community is prepared to get serious in policing itself. And in the meantime, we must ask what we must do to protect our own coastal communities while the international community works toward a solution. It is time to ask when the international community will actually recognize substandard flag administrations and classification societies to be what they are and to refuse entry to their ships.

This has been a frustration of sorts for everybody concerned about the health and protection of our marine environment. It also raises the question, often, about whether or not the crews, the ships, the training, even, at times, the master of some of these vessels, are knowledgeable enough to prevent the accidents that result in spills around our coastline. These are serious issues.

I am delighted, again, to welcome Adm. William Kime. I am anxious to hear your testimony, Admiral, and look forward to the exchange of questions and answers afterward.

Please proceed.

ADMIRAL KIME'S OPENING REMARKS

Admiral KIME. Thank you, Mr. Chairman. It is also a pleasure for me to appear before the subcommittee again and before you.

I felt a little bit like Abe Lincoln last night getting ready for this hearing. The lights went out at my house for about 1½ hours. And I studied my briefing book by candlelight. My wife was afraid I was going to burn the house down, but luckily, they came on after about 1½ hours.

Senator LAUTENBERG. It was like a false storm. I never saw anything like it. I mean, trees—branches, fresh with sap and looking very healthy, were torn off of the trees. It was really kind of phenomenal.

It looked like times when leaves were falling, as opposed to just growing. So we—this does not come out of your time. Please, go ahead. [Laughter.]

Admiral KIME. Thank you, Mr. Chairman.

I would like permission to have my entire statement introduced in the record and be allowed to make a short summary statement.

Senator LAUTENBERG. Without objection. Thank you.

Admiral KIME. Thank you, Mr. Chairman. It is a pleasure, as I said, to appear before the subcommittee again. And this is a time when we have seen some very dramatic and historic changes not only in this country, but in the world. And domestically, I think, we have seen a renewed focus by the President on economic revitalization, environmental protection, and infrastructure improvements.

And I would like to discuss, today, some of the things that the Coast Guard is doing to play a major role in this. While these changes are going on, the multimission Coast Guard remains focused on its four primary mission areas that you are very familiar with.

And these, of course, are marine environmental protection that you discussed in your opening statement; maritime safety, which you again touched on; maritime law enforcement; and national security.

I think all of these directly support the initiatives of the President and also the goal of the new Secretary of Transportation, Secretary Peña, who stated that his goal is to provide the finest and safest transportation system in this country, and the world.

In environmental protection, this is certainly an area that continues to grow in importance for the Coast Guard. I appreciate very much the support that we have received from you, Mr. Chairman, in this area over the years.

And let me say that I welcome very much your initiative to introduce the legislation that you spoke of. I think it is much needed. I think it will go a long way toward helping to solve what is a significant issue and has been for a long time.

You and I worked together, back in 1987, in bringing the initial act into force. We look forward to working with you on the amendments. We certainly would like to discuss these, if you would, during the course of the hearing.

And, I would be very pleased to offer any comments. We have had a chance to review the draft and are generally very, very supportive of the initiative that you have taken.

Obviously, the Oil Pollution Act of 1990 remains a major challenge. We are pressing forward in implementing the provisions of that, concentrating initially on the ones that we feel will have the major impact.

Maritime law enforcement is something that is very dynamic in nature, constantly changing. Fisheries resources are certainly a significant asset—a $24 billion a year industry, plus 17 million recreational fisherman. And, we have tried to adjust our resources to better fulfill the statutory mandates that we have in the area of fisheries enforcement and in conservation.

I am also very proud of the effort of our men and women—not only in the Caribbean, but in the Pacific and the northern Atlantic—in the effort to prevent illegal economic migrants from coming into this country—especially those involved with the operations off Haiti.

Drug abuse continues to be a major concern in this country. And, drug interdiction continues to be one of our major efforts. In the last week, we have just concluded the second largest maritime cocaine interdiction in the history of this country—over 11,000 pounds of cocaine; and also the fifth largest—over 6,000 pounds of cocaine.

In fact, in our interdiction efforts for cocaine this year, in all of the efforts we have been involved with, including those with other agencies, we are already at about 80 percent of the level of seizures we had last year.

And, in Coast Guard-only efforts, we are 50 percent ahead of where we were last year. This, even in the face of the demands being placed on us by the operations off Haiti.

In the area of national security, Mr. Chairman—the Coast Guard has just recently completed a publication which puts the focus on our role in national security, called "The United States Coast Guard—A Distinct Instrument of National Security." It points out that national defense is not the only part of national security. All of our missions, I think, play into this role.

Maritime safety, again, is a major mission, whether it be for the safety of ships and their crews or for the recreational boater; search and rescue, and commercial vessel safety are all very, very important. And we are very, very proud of our record, especially in search and rescue.

This budget, in reflection of the collapse of the Soviet Union and the change in the strategic threat to this country, recommends a reduction in our Selected Reserve Force—from 10,500 to 8,000.

I can strongly support the 8,000 number, Mr. Chairman, not only as being able to meet our national defense contingencies, but also the other contingencies that we are called on for and rely on our Reserves to perform—and where they perform so well: cases of natural disasters, earthquakes, hurricanes, and certainly oilspills.

For the Coast Guard itself, Mr. Chairman, I stand by my watchwords of "people, balance, and excellence." We are trying to do a better job of taking care of our people. And I think, with your support, we have been able to make some significant strides in that area.

Balance is, I think, our ability to, first, recognize changing situations in this country; and second, to have the flexibility to respond to these changes. And, I think our multimission nature enables us to do that.

Finally, in the area of excellence, Mr. Chairman, we are very, very much concerned with improving the management, administration, long-term planning, and execution of the missions that the Coast Guard has.

I think TQM has helped us a great deal in that area. It is not a program, it is a way of doing business. It is a management technique. And I think we have made some significant strides in that particular area.

Mr. Chairman, this, we think, is a very austere budget. We have tried to offer up offsets for important initiatives that we believe that we have. In the operating expenses request, we are looking for only $52 million in increased budget authority. And, $48 million of that is taken up by annualizations and nonpay cost of living. So what I am trying to do is provide offsets for the things that we feel need to be done, Mr. Chairman.

I have with me today, Capt. Roy Casto, on my left, who heads our Budget Division, and Capt. Tom Collins, on my right, from our Programs Division. And with that, I would be—all of us will be pleased to answer any questions you have.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Admiral Kime. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF ADM. J. WILLIAM KIME

Good morning, Mr. Chairman. It is a pleasure to appear before this distinguished Subcommittee today to discuss the Coast Guard's fiscal year 1994 budget request and its impact on the current and future state of the Service.

We have seen dramatic and historic changes in both the international and domestic landscape in recent years. The breakup of the former Soviet Union, the emergence of a uniting Europe, and initiatives like the North American Free Trade Agreement are all changing the face of the globe as we know it. At the same time, we are moving to a more global-based economy. There is a new security environment, marked by growing regional instability, and national security threats that are not as well defined as in the past. Although less defined, these threats remain very real, as demonstrated by the recent terrorist bombing at the World Trade Center in New York City. Amidst all this uncertainty, the United States must be positioned to respond in a timely and flexible way.

Domestically, the President has proposed significant changes to address the needs of the Nation, which are outlined in the document, "A Vision of Change for America." This plan provides a renewed focus on economic revitalization, environmental protection, and infrastructure improvements. President Clinton has also made a strong commitment to address the growing national deficit, control the growth of Government spending, and most importantly, preserve the American dream for our children and grandchildren.

I am here today to explain how the Coast Guard fits into this picture and how our fiscal year 1994 budget request promotes these broad areas of national interest.

First, let me explain that, amidst these defining foreign and domestic changes, the Coast Guard remains focused on its enduring missions. The roles of our Service, more than ever, are linked to America's national priorities, as well as the goal of the Secretary of Transportation—to provide the finest and safest transportation system in the world.

As we have done for over 200 years, we remain *Semper Paratus* to answer the call of new challenges and respond to national requirements wherever our services are needed. While we are small in size as an organization, we are long on value to the Nation, especially because of our flexibility and strong multimission capability. The Coast Guard is the world's leading maritime humanitarian and safety organization, with a hard-earned reputation for efficiency and professionalism. And we plan to remain the leader.

As the Nation's primary maritime operating agency, the Coast Guard has an important role in four fundamental areas: Marine Environmental Protection (MEP), Maritime Law Enforcement (MLE), National Security, and Maritime Safety. To effectively carry out these roles, we must operate and maintain shore facilities, vessels, and aircraft which must be highly responsive to the needs of our Nation.

All Coast Guard missions—whether directed toward rescuing distressed mariners, enforcing fisheries regulations, combatting oil spills, keeping channels safe for shipping, interdicting drug smugglers, breaking open ice-bound rivers, or conducting port security operations—contribute directly to the Nation's economic, social, environmental, and military security.

We have a vital role in supporting the national maritime transportation infrastructure, by ensuring the safe and efficient use of ports and waterways—where trade must move safely in and out of ports; and supplies must be safely loaded for deployed military forces. Our activities in maintaining Aids to Navigation (ATON), providing Vessel Traffic Services (VTS), conducting vessel inspections, and licensing merchant mariners all promote a safe and efficient maritime transportation system. Given the increasingly interdependent nature of the global economy, we must ensure this system flourishes and continues to preserve American interests.

I have already mentioned our four primary operating missions and would now like to briefly highlight some of our recent accomplishments in these areas and discuss where I see us going in fiscal year 1994.

MARINE ENVIRONMENTAL PROTECTION will continue to be a highly visible mission because of national concerns over all forms of pollution, especially the type of environmental damage that can be caused by a tanker oil spill like that from the recent grounding of the *Motor Vessel Aegean Sea* off the coast of Spain. Building on the momentum of the Oil Pollution Act of 1990 (OPA–90), we are taking significant strides to improve America's ability to prevent and respond to marine pollution incidents. We are focusing on increased prevention and response capabilities; greater enforcement efforts; and completion of spill response contingency plans at all levels.

Some initiatives which highlight our progress in this area include: continued distribution of pollution response equipment to 19 prepositioned sites; review and approval of vessel and facility response plans; establishing regional strike teams which are actively responding to pollution incidents; forming the National Pollution Funds Center to pay claims associated with oil spill cleanup and to make funds available to states up front for pollution response; national and international efforts to establish double hull design standards; significant progress on 47 rulemakings required by OPA–90; more aggressive enforcement of MARPOL V regulations; spill response training exercises; and striving to work better with both industry and the environmental community.

The priority we place on improving our capability to both prevent and respond to marine pollution incidents is reflected throughout the fiscal year 1994 budget request, which, although effectively constrained to current services levels, includes modest new operating resources to support additional pollution response training and augmentation of the National Pollution Response Center. The budget request also includes Acquisition, Construction and Improvements (AC&I) funding for two seagoing buoytenders which will have a built-in spilled oil recovery capability. In addition, environmental protection-related projects represent a significant portion of the total project funds in our Research, Development, Test and Evaluation (RDT&E) appropriation request.

MARITIME LAW ENFORCEMENT has been an integral part of our service since 1790 and will remain an important mission in the future. Law enforcement touches nearly all program areas of the Coast Guard and requires a dynamic balance among fisheries enforcement, alien migration interdiction, antidrug operations, and other general maritime law enforcement activities. Our fiscal year 1994 request will allow us to continue our current level of effort in this important area as we focus on achieving the balance necessary to respond to national priorities.

Fisheries enforcement is a growing priority in the marine environment because of increased public concern throughout the Nation—as well as internationally—over the preservation of major fishery stocks. Our fishery resources represent a significant national asset, especially when you consider that the U.S. fishing industry contributes over $24 billion per year to the economy. They also provide an important quality of life enhancement to 17 million Americans through recreational fishing. These resources will continue to require protection from foreign encroachment; however, with a domestic harvesting ability of three times the available yield, these resources are clearly in danger of being overfished by American fishermen alone. This has a direct impact on the economy, because when stocks are overfished and depleted, American jobs are lost. To ensure the success of fishery management plans and the sustained viability of our fishing industry, fishery managers require strong enforcement support from the Coast Guard.

I have continued to redirect operational tasking to meet growing fisheries enforcement requirements within the MLE mission area to enhance our fisheries enforcement efforts—a critical step toward increasing compliance with fishery management plans. The fiscal year 1994 budget request addresses the substantial challenge of fisheries law enforcement and protecting fishery resources by providing new staff and training for four Regional Fisheries Training Teams. This is one of the very few areas of our budget where we are requesting new resources to improve our operational capability.

Moving to another law enforcement arena, I am extremely proud of the dedicated performance of our crews in the difficult mission continuing to take place off the shores of Haiti. The fact that over 42,000 migrants have been safely intercepted, in all types of weather, during night and day, is indeed a tribute to our men and women assigned to perform that mission. Conditions within Haiti, Cuba, and also in other parts of the world, such as the People's Republic of China, have the potential to foster future mass migrations. The alien migration interdiction mission will continue to require substantial Coast Guard enforcement efforts in response to these regional instabilities.

Drug abuse continues to be a serious national problem of great concern to us all. In recent years, the national strategy has increased the focus on *demand* reduction and sought greater efficiencies on the supply-side reduction efforts; Coast Guard resources devoted to drug interdiction have been reduced accordingly. Despite better intelligence and the application of improved technology, we still encounter a very determined cocaine smuggling community.

Over the past year, even while the Coast Guard has been heavily engaged in Haitian migration interdiction operations, we have also continued our vigorous support of drug enforcement as the lead Federal agency for maritime drug interdiction. We are maintaining our law enforcement efforts to deter the maritime transport of illegal drugs, and work closely with the Department of Defense, as well as a coalition of other Federal agencies, to intercept and prosecute narcotics smugglers.

As an example, in November 1992, our units led a joint Navy, Customs Service, and Canadian mission which involved tracking a narco-aircraft from South America, intercepting it off the East Coast, and ultimately supporting the seizure by the Canadians—the cargo was 3700 Kilos of cocaine with a street value in excess of $100 million.

In support of our MLE efforts, our fiscal year 1994 AC&I request will fund various capital investment projects for renewal of multimission facilities, such as the Midlife Maintenance Availability (MMA) of our 210-foot cutters, and procurement of three replacement HH–60J helicopters for Operation Bahamas and Turks & Caicos (OPBAT) antidrug operations.

To emphasize our role in the NATIONAL SECURITY strategy as one of the Nation's five Armed Forces, I recently published, *"The United States Coast Guard—A Distinct Instrument of National Security."* In there, I point out that unlike the other military services, the Coast Guard's national security mission does not concentrate exclusively on the national defense role. Drawing from all our other missions, the Coast Guard provides a unique capability to enhance and defend our national security, that is not duplicated by the other armed services.

The Coast Guard has been involved in every major American conflict since 1790. Our contribution during Operation Desert Storm, our continuing involvement in the Persian Gulf with our Law Enforcement Detachments (LEDETs) enforcing the embargo against Iraq, our presence off the coast of Haiti, establishing and patrolling special harbor security zones when risk assessments dictate, and our LEDETs helping enforce the embargo against the former Republic of Yugoslavia, all underscore the unique and versatile contribution of the Coast Guard.

The Coast Guard is helping to shape the emerging security environment through nation-building and strengthening of alliances with developing countries. Our international leadership in this area is clearly reflected through security assistance training; passenger vessel security initiatives; deployment of marine safety assistance teams, and international law enforcement training teams. Additionally, we play a central role in the International Maritime Organization (IMO), where we seek to build global solidarity in the advancement of environmental prevention and response efforts, as well as vessel and port safety regulations.

General Powell, Chairman of the Joint Chiefs of Staff, recently reaffirmed our National Security role, "I'm more certain than ever that the Coast Guard belongs in the national command authority's tool box of military capabilities. I also agree absolutely that the Coast Guard's national security functions will evolve with the emerging requirements of the post-Cold War era * * *."

As the Nation's primary maritime operating agency, we are actively saving lives and property at sea on a daily basis. Our MARITIME SAFETY mission has helped form our rich humanitarian tradition, and yield a reputation as *the* world's expert in Search and Rescue (SAR). Through our efforts in Aids to Navigation (ATON), Commercial Vessel Safety, Icebreaking, VTSs, Recreational Boating Safety, and deployment of a Differential Global Positioning System, we seek to prevent accidents and promote safe maritime transportation.

In fiscal year 1992, we carried out over 69,000 search and rescue cases which resulted in 5,450 lives being saved; further assistance to 122,750 individuals; and the saving of over $706 million in property. We quickly answered the call in the wake of hurricanes Andrew and Iniki, performing 142 SAR cases, responding to over 80 oil pollution reports, and repairing hundreds of aids to navigation.

Maritime Safety initiatives are an integral part of our fiscal year 1994 capital budget request, which includes such projects as: development of a modern Vessel Traffic System (VTS) for eventual deployment in our highest risk ports throughout the Nation; upgrades/expansions of existing VTSs at New York and Puget Sound; further deployment of the Differential Global Positioning System; and replacement of our aging seagoing buoy tenders (WLBs).

Mr. Chairman, I would now like to give you an overview of our fiscal year 1994 budget request. This request is consistent with the Administration's overall policy goals, as well as the ensuing Executive Orders which call for administrative efficiencies and civil service personnel reductions. The total request of $3.73 billion across all appropriations is virtually the same level of funding that was requested for fiscal year 1993. If fully funded, this request would allow us to continue providing the most important services that the public expects of us, and permit a few vital enhancements in selected areas.

The request in the Operating Expenses (OE) appropriation essentially reflects a current services operating level with very minimal funding for discretionary initiatives. Over $48 million of the $52 million requested increase in this account will be consumed by fiscal year 1993 annualizations and the cost of living allowance. The improvements requested in the marine environmental protection, marine safety, living marine resources, and work-life areas are necessary and modest. Outyear budget projections forebode the need for even greater efficiency measures if current service levels are to be maintained. I look forward to your future support as we reshape our OE appropriation in support of Presidential budget control initiatives.

The Acquisition, Construction, and Improvements (AC&I) appropriation is our source of capital investment funds. This year's request of $414 million matches the amount requested last year and allows us to move ahead in some critical areas; however, knowing the capital replacement and improvement requirements that await us in years to come, your sustained support for the necessary AC&I funding levels to meet these requirements is absolutely essential.

Now, turning to our fiscal year 1994 request for the Coast Guard Reserve—an essential element in our ability to respond to national contingencies. As promised last year, I have reassessed our mobilization requirements which have been derived from the updated Department of Defense contingency planning scenario. That review produced a Coast Guard mobilization requirement which supports a Selected Reserve force sized at 8,000. The Reserve has distinguished itself through many noteworthy contributions in recent years, including supporting the Persian Gulf war in-theater and stateside; and providing emergency assistance during natural disasters such as the Exxon Valdez oil spill and hurricanes Andrew and Iniki.

While the justification for the new size of this force is based on the Coast Guard's defense-related mobilization requirement, I am confident that this downsized Reserve force will still be capable of adequately responding to both military and nonmilitary contingencies, like those highlighted above. The Reserve Training (RT) request of $64 million will support a full training program for 8,000 Selected Reservists.

Mr. Chairman, there is one more budget issue that I feel I must highlight. In recent years, various levels of funding for the Coast Guard were provided from Department of Defense (DOD) sources, primarily as the result of congressional initiatives. That has become problematic because of the ongoing DOD drawdown as well as potential ambiguity in congressional oversight. It is our desire to receive all our appropriations through budget function 400. With the funding walls down, we now see an opportunity for full funding within the Transportation allocation.

As outlined in previous testimony, the Coast Guard is proceeding on the course charted in my Vision Statement and Strategic Agenda. Our organizational watchwords remain * * * PEOPLE, BALANCE, and EXCELLENCE. We have made significant progress in PEOPLE programs; in achieving resource and mission BALANCE; and in delivering the highest level of quality and EXCELLENCE in services to the public. After three years at the helm of the Coast Guard, I feel that the ship is on course and has made excellent progress in all three basic areas.

One of my highest priorities has been to restore a proper emphasis on the needs of our PEOPLE—because people are the source of our organizational strength and effectiveness. We ask a great deal of our personnel—and, as you have seen in the past year, they deliver. Whether cleaning up oil spills, maintaining buoys, intercepting illegal aliens, hoisting the crew off a sinking freighter, breaking ice, providing emergency response to a hurricane, apprehending smugglers, or enforcing fisheries regulations—our crews work hard and go in harm's way to give the American public an honest return on every tax dollar * * * and they do it in a manner that makes me very proud. In return, we must ensure that we fulfill our responsibility to meet their basic needs.

I remain a strong advocate for improving the quality of our personnel support programs because we are only as good as our people. We have made excellent strides in this area, but continued progress is needed. One of the very few enhancements in this year's OE budget request is the Work-Life program, which is the vanguard of our efforts to systematically improve personnel support in the Coast Guard. Our request for $3.1 million allows continued implementation of Work-Life initiatives in the areas of: relocation and housing assistance; dependent care; health care and wellness; family assistance; life skills and crisis counseling; employee assistance; and education and training. This program represents a strategic investment in our "human capital" that will pay off by ensuring the maintenance of a highly dedicated, talented, and productive workforce in the future.

We must also continue our efforts to build a balanced workforce which reflects the rich diversity of our great Nation. This means recruiting and retaining the highest qualified candidates from a shrinking and very competitive job pool. We have seen encouraging trends in first-term reenlistment rates, increasing from 55 to 60 percent (over the past year); we need to continue personnel and recruiting initiatives to ensure the Coast Guard remains competitive for top talent in the 90s; we must also ensure that the incentives are in place so members of our diverse workforce find career service an attractive option.

I believe our retention rates are at an all-time high in large part because of our demonstrated concern for our people and efforts to enhance quality of life. Continued improvements in compensation, housing, medical care, and the working environment will allow us to attract and retain the most qualified personnel * * * and keep our retention rates high.

Regardless of the changes in demographic or economic conditions, investments in our people-related programs will yield future dividends by building a quality workforce which is best prepared to meet the burgeoning challenges facing our service.

Since 1990, I have sought to achieve the proper strategic BALANCE among our major roles—and I have already discussed initiatives that help us move in that direction as an organization. The proper balance of emphasis and resources among our mission areas remains a central theme in my Strategic Agenda, and is the key to preserving and enhancing our highly efficient multimission character—the hallmark of Coast Guard efficiency and responsiveness.

The Coast Guard has a well-deserved reputation for EXCELLENCE; however, we are still continuously striving to function more efficiently and effectively. We continue to successfully apply the leadership and management principles of Total Quality Management (TQM) in a growing effort to maximize the efficiency and effectiveness of our resources.

We do not consider TQM a magic formula which was purchased off the shelf to solve a short-term problem—it is a way of doing our daily business which we have made part of our business culture. TQM is firmly established in the Coast Guard and has become the process we use to determine how to deliver the right services to the public at the right time, and in the right way.

In summary, my watchwords for directing the Coast Guard remain PEOPLE, BALANCE, and EXCELLENCE—these themes will continue to serve us well as we face the major challenges ahead. We will maintain our performance and readiness through continued emphasis on PEOPLE—our most important resource; a BALANCE among our various missions; and an unwavering commitment to EXCELLENCE.

Mr. Chairman, the President's fiscal year 1994 budget for the Coast Guard reflects a—constrained request with no *real* growth beyond the level of current services. I need your full support of this request. It represents the first of what I expect to be several austere budget years which will require very careful management of base resources. As we have seen this year, our ability to address emerging national priorities in the future will only be possible through substantial consolidations or other actions which create efficiencies from within existing resources. I believe this budget request is responsive to the challenges we face in meeting the Nation's maritime transportation needs, while at the same time responsive to the fiscal challenges we face as a Nation.

In closing, I would like to thank the Subcommittee for their support over the last several years. I appreciate the continued opportunity to work with returning members, and look forward to meeting new members. We have worked hard to improve our communications with, and responsiveness to, the Committee members and staff, and I think we have made significant progress in that area. I can assure you that this important effort will continue in the year ahead.

Mr. Chairman, I will be happy to answer any questions you or the other members of the Subcommittee might have.

ALIEN MIGRATION INTERDICTION

Senator LAUTENBERG. We welcome your associates and would note that the budget request, even as we continue to insist on additional responsibilities for Coast Guard, is on the conservative side. Unfortunately, we have a situation that you are very well aware of with the total Government budget. It puts enormous pressure on all of our departments. We are hopeful that we are going to be able to meet the requests, but we know that you will work with us in trying to find the most efficient way to use the resources that are available.

It was interesting, I noted yesterday, that there was an interception of a ship with a bunch of individuals seeking to illegally immigrate or migrate to this country from China—a small dilapidated vessel. That had to be some trip across the ocean. And these poor folks were apparently paying as much as $20,000 a piece to make that journey, but, once again, the Coast Guard was diligent and intercepted the vessel. We can be as sympathetic as we want, but we cannot permit our borders to be abrogated whenever anybody chooses to come.

Admiral KIME. Mr. Chairman——

Senator LAUTENBERG. They are getting more bold all of the time, I think, in trying to make the trip.

Admiral KIME. This is something that is of increasing concern to us. We have sent vessels as far as 1,500 miles west of Honolulu with what began as a search and rescue case, but, again, turned out to be an attempt to smuggle illegal economic migrants into the United States from the Peoples' Republic of China. And, you just mentioned a case that we had that began off of the coast of Florida. We took the vessel back down to Honduras, the flag State.

We also had one that has just concluded, where we interdicted almost 200 off of the Baja Peninsula. They have been seized and taken into California.

We have information, Mr. Chairman, that there may be up to as many as 50 vessels that are being outfitted to do this operation. And many of them, we believe, are the drift net fishing boats from Taiwan and other areas in that part of world that can no longer get involved in the drift net fishing because of the U.N. moratorium on that. And now they are being outfitted to do this.

So this is something that we look at as a major challenge in the future. We are working very, very closely internationally through the State Department and through all of the Federal agencies that have a responsibility.

MARPOL ANNEX V ENFORCEMENT

Senator LAUTENBERG. Admiral Kime, back in September, Captain North, your Deputy Chief of Marine Safety, testified that in his view, a 25-percent penalty assessment rate for MARPOL violation cases in 1991 was not acceptable.

A review of the MARPOL penalty assessments for the last year indicates that, nationwide, the civil penalty assessment rate was roughly 18 percent. And in the Atlantic area, where the vast majority of cases were found, the penalty assessment rate was only 12.4 percent.

Now, if the Coast Guard, in fact, does consider a 25-percent penalty assessment rate for MARPOL V violations to be unacceptable, how would you characterize a 12.4-percent rate that has been achieved over the last year in the Atlantic area?

Admiral KIME. Mr. Chairman, we discussed the question of MARPOL enforcement rather extensively at the hearing last year. And, I think the Coast Guard has made some significant strides in this area.

We still have a way to go, but we recognize the importance of this. We have, now, the capability to collect and analyze data electronically—an ability we did not have a year ago. And what we have done is to initiate a significant change in our civil penalty process.

Back in October, we published new guidelines on penalty recommendations to help our Marine Safety Offices enforce MARPOL regulations. In addition to that, we issued instructions on the need to pursue all discharges where we had the five basic elements necessary for prosecution and to move forward in this area.

And now, looking at the data, since this instruction has come out, we find that the amount of the penalty assessments are 61 percent greater than they were before it came out. This instruction is binding on our field personnel.

We are doing the same thing with Annex V of MARPOL, to also take stronger enforcement action. And, you are aware of the criminal penalty that was recently reassessed against a merchant vessel of $500,000.

The head of that shipping company saw me in London about 2 weeks ago and is coming to the United States early next week, again, to discuss this issue, recognizing that they need to pay greater attention to that.

There is another example of a fine of $150,000 against a fishing vessel in Seattle. There are many other cases of this type pending that I cannot talk about, because the U.S. Attorney has not yet set down an indictment.

Senator LAUTENBERG. Can we expect the assessment rate—the penalty assessment rate to significantly increase?

Admiral KIME. Yes.

Senator LAUTENBERG. OK.

Admiral KIME. Yes, we can, Senator. I think that if we look at what is happening now—and if we look in 1991, of the penalty cases we initiated, 57 percent went forward for penalty assessment. And in 1992, 75 percent went forward.

Certainly, it is an area we have to continue to work on, but we think we have made some significant strides. We will be able to provide, on a periodic basis, information on the progress we have made.

And most important, I think, though, rather than just providing the information to the oversight committee, which is certainly important, we will have the ability to manage the program better, especially looking toward specific problem areas.

Senator LAUTENBERG. Admiral Kime, we have an Atlantic area MARPOL violation results graph here, from March 1992 to February 1993. And it says, "Penalty assessed,"—what is this 17 here?

Oh, the number of cases—"17 cases, 12.4 percent." Now, the numbers that you just gave us were far greater than these. This is your report. So there is obviously some disconnect between that which you just presented and that which is available to the committee here.

Admiral KIME. Well, Mr. Chairman, I was talking about the cases that were forwarded for penalty action by our Marine Safety Office. Now, we have to talk separately about the action by the hearing officers.

For Annex V, for example, in 1991, there were 12 penalties, with an average penalty of about $3,300. In 1992, there were 47, and the average penalty doubled to $6,300.

What we are doing, Mr. Chairman, is putting forward this process in two stages. One is the investigation of the incident, and the other is forwarding of a pollution violation case to the hearing officer. I think we have made some significant strides in that particular area, and that was reflected in the data I gave you.

The rate of penalty increase, so far, from the hearing officers, has only been about 6 percent. This is an area we are working on very, very hard. We have now consolidated our hearing offices in three places—Boston, New Orleans, which will handle the Atlantic area, and Alameda, which handles the Pacific area.

Senator LAUTENBERG. I will leave structuring to you, Admiral Kime.

The one thing that I would like to get from you and your people is a firm target for improvement and comparable data, so that we can look at it on a relative basis and see that the changes that you have made have reflected an improvement. So if you could, just forward us a summary of——

Admiral KIME. We will work with the staff, Mr. Chairman, to see the format, the type of data you want and how frequently we can provide it to you. And we will be forthcoming with that.

Senator LAUTENBERG. Thank you. Are the size of these civil penalties, in your judgment, acting as a sufficient deterrent to these violators?

To ensure greater compliance on the part of the shipping industry with MARPOL requirements, would you expect, that a discounting of penalties as they move from step to step for all types of violations, not just MARPOL violations, would help reduce the incentive for complying?

Admiral KIME. We think there is a need to do more, Mr. Chairman. And that is why we are doing it. I think we have, as I said, made significant steps in developing the cases and forwarding them on.

And now, we are directing our attention toward the hearing officers, to ensure that there is uniformity across the country in the level of penalties and also that the penalty meets the intent of the law and also the seriousness of the charge, so that they will, in fact, as the Congress intended, be a deterrent.

Senator LAUTENBERG. A review of the MARPOL enforcement data indicates that despite recent guidance and instruction from your Chief of Marine Environmental Protection, the Marine Safety Offices continue a rather inconsistent enforcement of the MARPOL violation.

Now, your Marine Safety Office in Anchorage, over the course of the last year, has processed as many civil penalties for MARPOL violations as has been processed by Los Angeles, New York, Philadelphia, Miami, San Francisco, Puget Sound, Mobile, New Orleans, Galveston, Portland, OR, and Portland, ME, combined.

Now, are you satisfied that the diligence of the Marine Safety Office in Anchorage ought to be a kind of a benchmark in pursuing civil penalties, and therefore, what does it say about the lack of aggressive enforcement in the other ports?

Admiral KIME. We now have the capability to manage this issue, Mr. Chairman, by looking at this data quarterly. And we are in the process of sending this data out to all of the field offices to let them know where they stand, and where things need to be done.

We are offering guidance and assistance to them. And we agree that there should be consistency, as much as possible, across the entire country, recognizing there will be some cases that are more serious than others, but on average, there should be a higher level of consistency. And that is what the Office of Marine Safety, Security, and Environmental Protection is working for.

We have presented the initial data to the staff that shows what we have done. And, we will be updating that quarterly. That is the data that has been broken down Coast Guard-wide and by district. It is being sent out to the districts.

We are analyzing it to see where attention needs to be paid. That is where attention will be paid, and that is the kind of information that I would envision supplying to the committee in response to the previous request you had.

PANAMA'S ENFORCEMENT RECORD

Senator LAUTENBERG. OK. Because the traffic in the other ports and, in some cases, individually, is far greater than that which is supervised by Anchorage. And I am sure that we can assume that violations are there, wherever they are, because we know what the condition is and especially with foreign flag carriers.

Admiral, last year, the Transportation Appropriations bill mandated that the Secretary of Transportation, in consultation with yourself and along with the Secretary of State, communicate to Panama the dissatisfaction of the United States regarding Panama's enforcement record of MARPOL—five cases involving Panamanian flag ships.

Please tell us how this provision, the law, is being implemented. And what was the mechanism through which the Secretary of State and Secretary of Transportation voiced our criticism.

Admiral KIME. This was voiced to Panama by the Secretary of State through our Ambassador in Panama, Mr. Chairman. The data on outstanding violation cases that we have not heard back from, was submitted to the Ambassador.

He met with the Panamanian officials on several occasions. There was an exchange of telex information between our embassy in Panama and the State Department that was given to us in an effort to get some information on what had been done and the degree of action taken. That effort is continuing. We could provide you with information on just exactly what transpired.

In addition to that, Mr. Chairman, we have seen the need to modify our enforcement procedures. Where, in the past, in many cases that did not occur in U.S. territorial waters, we sent the violation report to the flag State for enforcement. We agree with your opening statement that, in many cases, the flag State enforcement has not been to the standards that we would like to see.

So, wherever possible we are now trying to take action where we can establish jurisdiction, either civilly or criminally, in U.S. ports. And, I think some of the provisions that you have in your amendment to the 1987 law will help in that particular area.

Senator LAUTENBERG. I hope so, because there is always significant finger-pointing at Panama, that they often—at least as it appears, kind of shrug their shoulders and go ahead and do whatever they choose to do.

And I would ask you: To date, have we had any significant response from them that you are aware of?

Admiral KIME. I have seen most of the telexes that have come back—the cables from the embassy, Mr. Chairman. They have looked at all of the cases and told us what disposition they took. In addition, there were several incidents where they could not locate the information that the State Department had sent them previously on the violation. That information was forwarded down for consideration.

MARPOL—IMPROVEMENT IN PENALTY ASSESSMENT

Senator LAUTENBERG. Have you seen any improvement in the frequency of the penalties assessed by the foreign-flag States since the new policy has been implemented, that penalized these ships before any action is taken under U.S. law? Has there been better compliance?

Admiral KIME. We have seen a greater awareness of the need to comply and some improvement, Mr. Chairman, but we are certainly far from satisfied with their reaction so far. We will continue to pursue this.

Senator LAUTENBERG. Because, in the past, there were fewer than 2 percent of these cases, MARPOL V violations, that resulted in any kind of penalties being assessed. And so you have introduced a new policy to catch up with that.

Admiral KIME. And, Mr. Chairman, this is not just a U.S. problem. This is a problem other developed countries are having, too, and we are very concerned about the response provided to the IMO. The response back to the IMO has not been what we would like.

We have, in the United States, mounted an initiative through a new Subcommittee on Flag State Enforcement, that was established at the IMO, that perhaps we can get into when we talk about substandard ships, that will have some application here.

WASTE DISPOSAL REQUIREMENTS AND COSTS

Senator LAUTENBERG. Captain North testified to my Environment Subcommittee last year, that the real reason many vessels choose to dump illegally, is the perception that disposal costs are just too high.

Well, my proposed legislation would require the cost of dumping garbage to be included in the basic charge assessed to all ships that docked at a terminal.

Do you think that that is going to help address the dumping problem in a significant way?

Admiral KIME. Mr. Chairman, the short answer is a very positive "yes." Let me say that there are many fine aspects in your amendment, but I think this is the most important.

Utilization of waste reception facilities in European ports where there is no charge, because of economic competition between ports, is about three times greater than their use in the United States.

Some of the concerns about costs being too high are probably valid. In other cases, it is an effort by the ship for cost avoidance. So, I think the way you have crafted your proposal will go a long way. This service would, if your legislation passes, be available at no additional cost, whether you use it or not. And, I think this will remove the excuse and greatly promote the utilization of reception facilities, as will the prearrival notice that is also contained in your amendment.

Senator LAUTENBERG. The original, implementing law for MARPOL Annex V, required U.S. vessels to carry a waste record book, accounting for the disposal of all accumulated garbage. However, under previous administrations, OMB objected to this provision. And thus, it was never implemented.

My new legislation requires waste record books for all vessels entering U.S. waters, including foreign flag ships. How does that strike you with an ability to improve compliance if we have this put into effect—the waste record books—by every ship that enters our waters?

Admiral KIME. It strikes me very positively, Mr. Chairman. We have ongoing, again, another effort in this country to require the record books aboard U.S. vessels to try to satisfy the concerns previously stated by OMB. And, we hope that this initiative will be successful. It totally parallels what the legislation says. So we appreciate that.

As far as foreign vessels are concerned, right now, there are guidelines—nonmandatory, nonbinding guidelines—agreed to internationally at IMO for the enforcement of MARPOL Annex V. And, they contain a provision for record books.

We are going to be presenting to the Marine Environmental Protection Committee of the IMO a proposed amendment that would make this mandatory under the MARPOL Convention. Certainly, that would be consistent with the thrust of your legislation. And I think, in that regard, the action that you are taking will add impetus to the initiative that we are taking internationally.

Senator LAUTENBERG. I wonder if it is possible to establish some kind of a yardstick that establishes a likely minimum amount of trash disposal, garbage disposal—based on the number of people in the crew, there are certain feeding requirements, et cetera, et cetera—and, at least, maybe to try to account for it in some way, because as I look at the problem of enforcement, there is a big expanse of water out there that is very inviting. And if a cook—like when I had KP on a vessel going overseas in 1943—decided that it was time to get rid of it, they opened the port and out it went.

So I wonder if there is not some measurement that says, "You have to account for at least this much trash." I guess if you try to compare the diet of the developed countries to the diet of some of the others, you may get significantly less trash, because there is significantly less food being offered. But if there was some way of saying that you have to account for whatever there was for likely disposal to try and get a handle on this in some way. I am just kind of musing.

Admiral KIME. Well, we have had this discussion before, Mr. Chairman, back in 1987. I agree with you now, and I agreed with you then. This has been one of the major problems in enforcing MARPOL Annex V. And I think the record will go a long way toward doing that. Education is important, too, and we have mounted a major program on that.

Your legislation promotes something that I think is very favorable in passenger vessels. And that is, an announcement to the crew—and passengers—that you are not allowed to throw trash over the side of the ship, much as we make announcements on safety and fire and abandon ship drills right now.

We are going to continue to work very hard in this area. Certainly, high penalties that we have assessed and have in the mill for other cases that I mentioned I cannot talk about the details yet, because the U.S. Attorney has not rendered an indictment yet, will also go a long way.

This is something we want to continue to work on. And, I think we are making progress. It is very difficult. It is similar to the effort we began in the fifties to keep people from throwing trash out on the highways. It has required education and enforcement. And, I think we see some major success in this area. We need to continue this in the maritime field.

M/V ADVANCE

Senator LAUTENBERG. I wonder if packaging could be dye-stamped in some way, so that it was traceable, if it is out there. Food disposal is apparently not a problem, I mean it is taken up by marine life. But just something that says, "Hey, if you do it, you have a chance of getting caught." Anyway, we will think about that some night over coffee.

I want to talk for a moment about the vessel inspection program. This past January your inspectors at Hampton Roads, VA, brought in a multiflag cargo ship named the *Advance*. The Coast Guard characterized the ship's condition as deplorable.

According to press coverage of the episode, the ship's deck was one long sheet of rust. There were holes in the deck, marine structural parts of the ship were severely corroded. Fire pumps did not work. Lifeboats could not be released. Stairs were rusted through, and sewage pipes emptied into the engine room. It was not until last week that you allowed this ship to sail from Hampton Roads to Baltimore.

How long does it take for a ship to deteriorate to that condition?

Admiral KIME. It takes a great deal of time and a great deal of neglect, Mr. Chairman, for that to happen. You have just described a substandard ship, one that we are very much concerned about.

This ship was flying the Maltese flag, and was classed by Lloyd's Register of Shipping in London, certainly what we would not consider a "Tinker Toy" classification society, but still they had allowed this to happen.

We began our effort with the *Advance* back on January 3. The crew was not very cooperative at the beginning. They soon found out they were going nowhere until they did make the necessary changes. Money was short, but finally, that did appear. It was only recently that the vessel was allowed to proceed to Baltimore.

They are still unloading it. We are working with the Maltese Government and Lloyd's Register of Shipping to see what will be the future of that ship. But that is one that got in that condition because of neglect by the owner, by the flag state, by the classification society, and was caught by port state and port state control. This might be a good time to talk a little bit about what we are doing with substandard ships.

Senator LAUTENBERG. I want to just focus on one other thing here because your people, the marine inspectors, in Miami boarded this vessel slightly more than 1 year prior to its arrival in Hampton Roads. The inspectors in Miami, however, found only the most minor deficiencies with the ship, and no violations were cited during this boarding.

Now is it not fair to assume that the ship was already in pretty bad condition when it was boarded by your inspectors in Miami?

Admiral KIME. I would assume that it was well on the way to its condition, Mr. Chairman. I do not have any information on the boarding that was done in Miami. I can certainly get that and provide it for you.

Senator LAUTENBERG. Please do, because it then raised the question about what measures you take to hold your port captains accountable, when it is clear that they had let a delinquent ship enter and leave their port. So you will give us whatever information you have.

Admiral KIME. Along that line, we have taken over 200 intervention actions against vessels during this past year, so I think we do have the tools available to us, and I think we have exercised them, in most cases.

I will take a look at this, Mr. Chairman, and see exactly what the situation was, how it was looked at in Miami, and what the condition was there.

[The information follows:]

The M/V ADVANCE was boarded by the Coast Guard Marine Safety Office in Miami, FL on September 18 & 21, 1991. The echo depth sounder was inoperative, the vessel did not have a copy of the Inland Navigational Rules of the Road, and the vessel's maneuvering fact sheet was incomplete. The Rules of the Road publication was obtained and the maneuvering fact sheet was corrected. A letter of deviation was issued notifying the vessel not to return until the echo depth sounder was repaired. This action was documented in the vessel's Marine Safety Information System (MSIS) record. Importantly, all required SOLAS, MARPOL 73/78 and other certificates were onboard and up to date. The intent of the boarding was to ensure that the flag state was meeting its obligations under the international conventions and that the vessel met applicable U.S. laws. With all certificates current and no deficiencies discovered which would prevent the vessel from meeting minimum standards, the vessel was allowed to proceed without a more thorough inspection of its hull and equipment.

The M/V ADVANCE is a 19 year old vessel which has made only three port calls to the United States. The Coast Guard has boarded the vessel each time. The vessel was first boarded by the Marine Safety Office in New Orleans, LA on April 27 & 30, 1991. The M/V ADVANCE had suffered a loss of steering and was cited for not having onboard an echo depth sounder recording device. A steering pump was required to be overhauled and the vessel proceeded without further incident. At this boarding a full freight vessel examination was conducted because the vessel had not been previously boarded by the Coast Guard. The boarding at Miami on September 18 & 21, 1991, was less detailed because the vessel had been boarded within the previous year.

The M/V ADVANCE was sold in October 1992 to Denver Shipping Corp., Caracas, VZ and was operated by Resertec, Guayaquil, Ecuador. The vessel is Maltese flag and classed by Lloyd's Register of Shipping. The first U.S. port of call after the change of owner and operator was Hampton Roads, VA on January 3, 1993. An annual examination was conducted by a Coast Guard boarding team from Marine Safety Office Hampton Roads. This was a high priority boarding because the vessel had changed owner/operators and had not been in the U.S. or boarded since September 1991, a period of 16 months. The boarding team found that the vessel's International Oil Pollution Prevention Certificate was invalid and Safe Manning Certificate was not on board. The vessel had not completed the required intermediate MARPOL survey. An initial examination of the vessel found numerous material and safety deficiencies: salt water and fuel oil leaks in the engine room, life rafts stowed improperly, cracks in the motor lifeboat, holes in the firemain and defective fire hoses. Formal intervention action was taken under the authority of the International Convention for the Safety of Life at Sea. This action prohibited the vessel's departure until all deficiencies were corrected to the satisfaction of the vessel's flag state and classification society.

In the 16 months between the Coast Guard boardings in Miami and Hampton Roads, it is apparent in the case of the M/V ADVANCE, that the old and new owners/operators failed to maintain the vessel in a seaworthy condition, failed to schedule the required classification society surveys and failed to follow the advice of the classification society to effect necessary repairs. Items that met minimum standards in the Miami boarding fell well below standards by the time of the Hampton Roads boarding. Items that were not uncovered during the routine boarding in Miami were discovered in the Hampton Roads boarding which was more thorough due to the lack of current required documentation and clear evidence of problems on the ship.

The M/V ADVANCE is a classic example of a substandard vessel. The owner and operator of the vessel are primarily responsible for providing for a safe, well maintained vessel and an adequately trained crew. The classification society is responsible to assist the owner in maintaining the vessel in a safe condition. The flag state is responsible for assuring that the vessel is in compliance with the applicable international laws and treaties. The United States, as the port state in this instance, is responsible to ensure that the previously mentioned parties have adequately carried out their responsibilities. The case of the M/V ADVANCE demonstrates how rapidly a complex commercial vessel can deteriorate if proper maintenance and adequate management are not conducted. It is evidence of the continued need for both a strong U.S. port state control posture and involvement in this area at the international level.

CLASSIFICATION SOCIETIES/PORT STATE CONTROL

Senator LAUTENBERG. There is no way I guess, in accordance with international treaties, is there, that once classified by one of the societies, that you can prohibit that ship from entering our waters?

Admiral KIME. We are looking at the question of what constitutes a recognized classification society, Mr. Chairman. That is part of the effort I was beginning to get into against substandard ships internationally.

I think that everyone is beginning to recognize that we have substandard ships, substandard owners, substandard insurance companies, substandard flag states, and substandard classification societies, and that is why port state control is taking such increased importance.

It should not be that way. You should not fall through all those safety nets and have a vessel caught by Coast Guard inspectors in the Norfolk area. The Secretary General of IMO is concerned about that. The insurance companies now are waking up to this and doing something about it.

Let me tell you some of the things that are being done. At the IMO, they have established the new FSI subcommittee, the Flag State Implementation Subcommittee, and the Coast Guard leads the U.S. delegation to that. They recently had their first meeting.

There, I think, they took four very important actions. One was to draft information as to what would constitute a recognized classification society or any recognized agency that a flag state would delegate to. That will come forward to the Maritime Safety Committee later this month, and to the assembly, where I will head the U.S. delegation, in October. We will push very hard for passage of that.

In addition, classification societies, on their own, have adopted, under the guidelines of ISO 9000, the International Standards Organization, a quality document, an internal auditing procedure, and these audits of the societies are going on now.

The one for the American Bureau of Shipping is about three-quarters completed. Not only are the other societies participating, but a representative from the IMO is participating in this audit to see if their rules are what they should be, if their enforcement is what it should be, and if their interpretation is consistent.

We have asked the P&I clubs, the insurance industry, to participate in this, because they have complained about classification societies enforcement. To date, and I think very irresponsibly so, the P&I clubs have neglected to do this, even though the cost of such participation has been offered to be borne by the societies themselves.

Now, Mr. Chairman, let me shift over to another area, on port state control. Obviously, this vessel that we are talking about, the *Advance*, had been to other ports, and had not been caught there.

The work of this committee has also established a document, that will come forward as an assembly resolution in October, that provides guidance to port states for operational controls that should be applied to vessels.

It puts forward a recommended Maritime Safety Committee circular, which is, I think, less demanding than a single resolution, for guidance to flag states, for what they will do.

At the meeting in May, and I have already spoken to the Secretary General of IMO about this, we are going to insist that this become an assembly resolution, and I will take that strong message to London in October.

Finally, the fourth thing that this group has done, Mr. Chairman, which I think is very much needed, is they have begun the establishment of an international data base, so that the inspection records by all parties that look at ships can be made available, and can be accessed. The United States is the lead agency in doing this. This is the first step.

I also, in meeting 2 weeks ago with the Secretary General of IMO, told him the importance of this. He cited that there may be economic considerations. I certainly, as the Coast Guard Commandant, cannot commit the United States to additional funding for IMO. That would have to be done by the State Department. But

I did suggest to the Secretary General that perhaps user fees might be made available as a way of financing this.

We think this will be a step in the right direction, too. In this area, I think the insurance companies and the large oil companies are taking a very positive lead role, going along the same path that we are.

IMO EFFECTIVENESS

Senator LAUTENBERG. So you still have the individual operator who will own a ship under some corporate disguise, and as you suggested, substandard insurers, substandard crew, et cetera, et cetera.

Are you satisfied, you know the IMO very well, that things can really happen there, with the establishment of a subcommittee, perhaps, as a necessary chart for getting some focus on it? In the final analysis, what is your view? Can we really expect things to come out of there? There are enough members who do not really care as much as we and other countries about this.

Admiral KIME. Well, there are certainly 140 members, Mr. Chairman, but the United States, and some of the other leading maritime countries have a very strong voice, and have been able to get some significant and timely results.

An example is that the OPA–90 requirements for double hulls for new ships is now an international requirement, based on our actions through IMO. Also, in fact, the requirements for phasing out existing single-hull vessels, under the international regime agreed to at IMO, in many cases, is more restrictive timewise than what is in OPA–90.

DOUBLE-HULL REQUIREMENT

Senator LAUTENBERG. What is the target year on getting rid of the single-hull vessels?

Admiral KIME. Well, in Regulation 13–G of the MARPOL convention, the requirement is either 25 or 30 years of age, depending upon whether the vessel has segregated ballast or not. In the OPA–90 law, there is a table, based on tonnage, and for a good number of U.S. flag ships, they will be forced to be phased out under MARPOL prior to being phased out under OPA–90. I testified to that before, and I think we have made a list of those vessels available.

ASSESSMENT OF CIVIL PENALTIES UNDER OPA–90

Senator LAUTENBERG. The Oil Pollution Act was put into law almost 3 years ago. In last year's Senate report we pointed out that while pollution fines were significantly increased under that act, your people were not recommending or assessing fines at the higher levels called for in the act. I want to ask you whether you think that your people in the field are assessing penalties in accordance with the expectations of the Oil Pollution Act.

Admiral KIME. Well, I think we touched on this earlier, Mr. Chairman. Let me say that we have done several things. One, in October, we updated our guidelines to our marine safety offices, the ones that make the initial assessment, and there, the initial assessment increased by 61 percent since we have done that. We pointed out some shortcomings in what the hearing officers are doing, but we are working very hard to correct that, too. I have spoken with our Chief Counsel, and he is bringing in key representatives from all the hearing offices to get specific guidelines out to all the hearing officers by July of this year.

So I think there we still have a way to go, as far as the assessment of the actual penalty, but we have the mechanism to track that, and I think we should see some significant improvement. These new guidelines, published in October, reflect these increased penalties provided in OPA–90.

Another thing is that OPA–90 provides for class II penalties, which are significantly higher. These would be handled, instead of by a hearing officer, by an administrative law judge, and they could be as much as $10,000 a day, up to a maximum of $125,000. We have just published interim final rules to implement that, and the comment period on those rules will close in early June of this year.

Senator LAUTENBERG. Have there been any class II penalties judged at this point, or put forward?

Admiral KIME. There have not been, under these procedures, Mr. Chairman. As I said, the interim final rule comment period closes in early June. There was one case, one which you are very familiar with, the *Santa Clara,* where we attempted working through the U.S. attorney to put forward a class II penalty against the *Santa Clara.* But for reasons that I would not like to discuss here, because they could impact the litigation that is ongoing, a $3 million suit that has been brought against the owners of the *Santa Clara,* under CERCLA, it was decided that we should not pursue this penalty at this time.

We are in the process of promulgating guidelines to all our marine safety offices to indicate to them when we believe that we should have civil penalties, when we should have class II penalties, and when we should have criminal penalties forwarded to the U.S. attorney. That should be promulgated sometime early this summer.

Senator LAUTENBERG. There seems, Admiral, a consistent, it is not a reluctance, may I say an unwillingness or a choice to ignore some of the directives, because your marine safety officers have received numerous directives on the increased penalties that were enacted into the OPA, the Oil Pollution Act, in 1990.

Your hearing officers, who actually set the final penalties, have received no specific guidance, as we understand it, from the Chief Counsel on the higher fines set into the law.

So here we are, it is 3 years after enactment, and your hearing officers have received very little guidance on this issue. I think that perhaps talks to the fact that these higher penalties are in the law to make sure that the ships entering our waters are aware of the fact that they run a significant risk. It is a significant period later, Admiral Kime, since the law was put into place, and it does not seem like enough has happened, quite frankly.

Admiral KIME. Mr. Chairman, we have provided hearing officers with copies of the October 1992, instruction, and information as to the higher assessments that are coming forward from the marine safety offices.

You are correct that additional instructions and guidance are necessary for the hearing officers, and that is what I mentioned about the Chief Counsel bringing in the hearing officers and people from Headquarters to finalize these instructions, and get them out, at my demand, by the first of July.

I am not happy with what the hearing officers have done. They know I am not happy. They know you are not happy. And we expect some significant improvement in that area.

CIVIL PENALTIES—VIOLATIONS ACTUALLY PROCESSED

Senator LAUTENBERG. I look forward to that, Admiral. A review of civil penalty data indicates that an extraordinarily small percentage of deficiencies found on foreign vessels actually result in violations processed by your marine safety offices.

Example: Out of 912 deficiencies found aboard foreign passenger ships, primarily cruise ships, only 55 out of the 912 resulted in actual violations. Out of 912 deficiencies, only 55 were determined to be actual violations. That is roughly 6 percent.

Now, given the danger that is posed to passengers aboard deficient foreign flag cruise ships, do you find that acceptable, that only 6 percent of these deficiencies found by your boarding officers resulted in processed violations?

Admiral KIME. Well, in our guidance to the marine safety offices, we have told them that they will take a look at issues such as that. Mr. Chairman, many of the deficiencies that are found are corrected right on the scene. It might be just something that is loose. It might be something like a sign that is illegible, things of that nature. Deficiencies run from very major to very minor, and they are all included in those particular areas.

We are now trying to maintain a better record of deficiencies that are corrected on the scene, and what they are, the minor ones, as compared to ones that result in violations.

VESSEL INSPECTION PROCEDURES

Senator LAUTENBERG. It is an extraordinarily small number. Is there any experience that tells us that beside the relatively smaller deficiencies, that we can take a degree of comfort in the fact that these deficiencies are thoroughly reviewed. If you get down to only 6 percent, I am concerned that some of those deficiencies may be more significant than the minor adjustment. I can understand that.

And perhaps some classification ought to be given, so that we determine whether or not those that reduce the safe operation of these vessels in some way, or are endangering the passengers, ought to be classified differently, whether it is deficiency "A," "B," or "C," because a deficiency sounds like more than a bolt and a screw.

Can it deal with lifeboats? Can it deal with fire stations? Can it deal with crew training? Can it deal with access to lifeboats, that kind of thing?

Admiral KIME. Mr. Chairman, let me give you the sequence of events as to what happens. The ship is certainly built to international standards, under the supervision of the owner, the flag state, and the classification society, and is periodically inspected by the classification society. It is under port state control that these violations that you talk about are found.

There is a significant number of people at other levels looking at these. We look at them very strenuously upon their first entry into the United States. We give them another rigorous examination once a year, and they receive quarterly examinations for port state control. We, I think, are very particular in picking up deficiencies that we find.

To make sure that we are doing this properly, we have created a new group within headquarters that goes out to provide guidance to our people in the field that are inspecting the majority of these passenger vessels, places such as Miami, Puerto Rico, places in Alaska, Los Angeles, and Long Beach, to name the key ports that we look at.

We are very, very cognizant of any deficiencies that we feel could be life-threatening. We have reinforced that concern in the instruction I talked about. We will certainly take what you said to heart, about doing a better job of classifying these, and making sure that we can satisfy the committee that, in fact, we are doing an adequate job, and taking proper action for those deficiencies that need more than just collection—that need penalty action taken as a deterrent.

Mr. Chairman, I am just reminded that we have a request in the fiscal year 1994 budget for additional resources to be able to do a better job in that.

Senator LAUTENBERG. Is there a system by which even small deficiencies that are repeated focus more attention or incur the risk of being written up as a violation, if you sense that either the captain or the management of the line chooses to ignore the Coast Guard's review and criticism?

Admiral KIME. That is certainly taken into account, not only when writing up deficiencies, but also when deciding what action we are going to take, what punitive action.

MSIS UTILIZATION

Senator LAUTENBERG. This subcommittee appropriates funds every year to maintain the MSIS, the marine safety information system, which is your central computer file on ships' violations and penalties.

Some have observed in the ship chartering community that they could avoid chartering substandard ships if they had access to a more comprehensive data base on a vessel's safety history. I take it that that is what you were referring to before in terms of trying to establish more information.

Your system may be the most comprehensive data base currently available, at least for ships that visit the United States. Do you make that MSIS data available to any interested party who requests the data?

Admiral KIME. It has been made available in the past, Mr. Chairman, at a very nominal cost. I think quarterly information is about $117, something like that, for the cost of getting it out.

Senator LAUTENBERG. Can they——

Admiral KIME. They cannot readily access that information. We feel that there needs to be greater access to this type of information. I have spoken with various oil companies that maintain their own information. Classification societies have theirs.

There is concern about proprietary information, restraint of trade. That is why I feel that we need an international system that would take our data, and would also take the data from everyone else.

It would not be a black list for the bad ships, or a white list, or whatever you want to call it. What it would be, is a list so that people can evaluate the deficiencies that have been found by port state control, by flag states, by classification societies, and by charterers. I think this is a very important thing.

Senator LAUTENBERG. Whatever we can do on an international basis I think is good, but that should not prevent us from making available whatever information we can.

Admiral KIME. It is available, Mr. Chairman. I do not know of any case where we have turned a request down. We have not gone out and tried to sell this, but I remember when I was Chief of the Office of Marine Safety, Security, and Environmental Protection, Exxon was one of the customers, and it readily received information on the status of these ships.

Senator LAUTENBERG. Well, particularly with those vessels that call on U.S. ports, if we have information available, obviously, the charterers, I assume, know how to get it, but must they refer to the last published report? Is that a quarterly cycle, did you say?

Admiral KIME. No; we have been running a computer tape and a printout on a request basis. To my knowledge, we have not had people come in and say, "I am thinking about chartering these five vessels, could I see your data?"

Certainly, I think within the constraints of resources that this is something we would be willing to do, within the law. And, to the extent that the law prohibited us from providing as much information as we have, we would perhaps support modifying the law.

VESSEL MANNING REQUIREMENTS

Senator LAUTENBERG. I have a couple more things I would like to ask you, and I would be happy to hear from our colleague, Senator Stevens, who, it is rumored, has an active interest in Coast Guard activities. I do not know that to be true.

I think he and I probably are the most energetic about our interests in the Coast Guard. His State is one of the few that on a proportional basis has more coastline for land mass than little old New Jersey. But we will get to you in just a minute, Senator Stevens.

It is estimated that three-quarters of marine casualties are attributable to human error. In prior testimony to the subcommittee, the Coast Guard testified that you have found only three discrepancies nationwide regarding inadequate manning levels. All of these discrepancies were found at one unit, and that is the Marine Safety Office up in Boston.

Can you believe that all of the violations of the manning requirements that lead perhaps to some of these problems are only taking place in Boston?

Admiral KIME. Mr. Chairman, I think we have to structure this dialog into three principal parts: No. 1, how many people are you required to have aboard ship? No. 2, how many people are you required to have on watch, on the bridge, or in the engine room, at any particular time; and then the third thing is, what should be the qualifications of these people?

I am not familiar under which of these categories that the information you have falls, but let me say that we have taken a very rigorous stand and have prevented ships from sailing from our ports, when, in fact, they did not have the proper number of required and certificated people aboard the vessel.

In addition, there are various trials ongoing now internationally that would permit a one-man watch on the bridge of a ship at night, and we have consistently and very vocally indicated that that is not acceptable in U.S. waters, that there will be more than one person on the bridge at night.

In addition, for the qualifications of the people, the convention that covers this is the Standards of Training, Certification, and Watchkeeping, which the United States just ratified about a 1½ years ago, approximately 5 years after it came into force internationally. Our requirements comply with that, and the signatories must comply with that.

We are looking to upgrade that in several areas, to have better qualified people. Obviously, aboard passenger vessels, the ability of the crew to deal with passengers in another language is an issue. Those types of things are being looked at, and we envision a diplomatic conference to upgrade that convention in 1995.

MACKINAW DECOMMISSIONING

Senator LAUTENBERG. Your budget proposes to decommission a 50-year-old icebreaker, serving the Great Lakes. This ship is the *Mackinaw*. It is expected that this will result in a savings of operating and personnel costs of roughly $5 million a year.

Certain shipping interests in the Great Lakes have complained to us that the shipping season will be shortened and jobs will be lost due to the loss of this icebreaking capability. Now, we talked about this briefly.

Do you believe that there will be an impairment in the length of the shipping season, once you decommission the *Mackinaw*?

Admiral KIME. No; we do not, Mr. Chairman.

Senator LAUTENBERG. Why not?

Admiral KIME. We have looked at this very, very carefully. I think the concerns expressed neglect to consider the fact that we have five other icebreaking vessels on the Great Lakes, 140-foot icebreaking tugs, with considerable capability. We believe that under most circumstances, one of these vessels could do the work of the *Mackinaw,* and in the worst case, it would require two.

We believe the five that we have are sufficient, in addition to the three buoytenders that have icebreaking capability, and the fact that we can call on our Canadian friends, who have the Canadian Coast Guard cutter, *Samuel Risley,* which can be made available to us.

Certainly, the *Mackinaw* has more capability than the 140-foot tugs, but it is our conclusion, Mr. Chairman, based on studies going back as far as 1982, that the extra capability is not needed.

We think in these times of tight budgets, where we all must manage better, that this is an area where we, in fact, can make do with less more efficiently, not just the $4.6 million per year to operate this vessel, but the $6 million we will have to spend in the near term on habitability and safety aspects of the vessel to keep it operating, and a significant amount of money, totaling perhaps $40 million to keep it running for the next 15 or 20 years.

So we believe that this is the proper thing to do. We do not see it shortening the ice season on the Great Lakes. It is not a year-round navigation season any longer; for environmental concerns, in fact, it has been shortened, and the Corps of Engineers determines what the season length is, and we believe that the capability of the existing icebreaking tugs and buoytenders can maintain that season.

Senator LAUTENBERG. All right. Because Senator Kohl, from Wisconsin, has expressed his concern, and I would like to be able to tell him just what you have said here, and that is, that you do not see any reduction in the ability to use those waters from where they are now.

Admiral KIME. Mr. Chairman, let me say again, that should we feel that additional capability is necessary, we have other options. We are doing a study to see if there would be an additional—sixth—140-foot icebreaking tug from the east coast that could be made available there, should that be necessary.

DEFENSE READINESS FUNDING

Senator LAUTENBERG. I just have these last couple of questions, and then we will turn the mike to my friend, Senator Stevens.

In the last budget, 1992, the Bush administration's request included over $250 million in Defense funds for the Coast Guard, in recognition of your defense readiness mission. The budget request for 1994 includes zero for defense readiness for the Coast Guard.

Now, it is quite well-known that you have personnel operating in the Persian Gulf and in the area around former Yugoslavia. You continue to participate in major navy fleet exercises in the Atlantic and the Pacific. How do we get by with the elimination of Defense Department funding for the Coast Guard?

Admiral KIME. Well, Mr. Chairman, as you know, the Coast Guard has received Defense Department funding since about 1982, about $1.75 billion in operating expenses; about $1.2 billion in acquisition, construction, and improvements; and $100 million for our Reserve Training Program. Only one of the years—last year—did, in fact, the President's budget include a proposal to use DOD funds.

We would certainly prefer that the funding of the Coast Guard occur out of Function 400, the Transportation budget. We recognize, however, that in the past, both the Congress and previous administrations have seen fit to fund the Coast Guard, partially for the reasons you have just indicated, from the Department of Defense budget.

We would still prefer to see funding within Function 400, but if it is necessary to fund the Coast Guard partially from other appropriations, if that is the only way, in fact, that we could be funded to meet the demands placed upon us by the Congress and by the public, we would not object to this.

One point I would point out, Mr. Chairman, is the concern that we have when we are funded from more than one appropriation; it is the issue of oversight, and we would hope that any action that Congress might take to meet what are some real, real budgetary concerns, would not result in additional oversight of the Coast Guard by additional committees.

We think the two committees in the House and two committees in the Senate do an excellent job of this, and it would be extremely difficult for us to manage, as perhaps it would be for the Congress, if that oversight were expanded for this funding consideration.

Senator LAUTENBERG. I agree with that. But we have, in the past, accepted their support, because they have given us assignments, or given the Coast Guard assignments, and we pretty much control what is construed to be oversight for the Coast Guard.

Now, if you don't get that defense funding again this year, this subcommittee is going to be required to increase your budget by $448 million, which is roughly an increase of 14 percent over and above the amount provided in last year's Transportation bill, in order to finance your budget request.

So we are going to have quite a task. Does it suggest that we terminate some of the defense readiness missions, and what would be the impact, if we reduced your budget by the $300 million, and mandated that all the defense readiness missions be terminated?

Admiral KIME. Well, because we are a multimission organization, Mr. Chairman, and we are very people-intensive, obviously, a $300 to $400 million reduction in the Coast Guard's budget would be catastrophic, not only to the defense readiness missions, but to everything that we do. That is the reason I answered your question in the way that I did.

TRANSFER OF FUNDS FROM OTHER ACCOUNTS

Senator LAUTENBERG. We have, again, someone who has been very active in his support for the Coast Guard, and someone who we can thank for his intervention on behalf of the Coast Guard's needs with DOD.

Senator Stevens is very senior on the Appropriations Committee, and is the ranking member of the Defense Subcommittee, to whom we turn, looking for help. So, Senator Stevens, we are glad to have you with us. I invite you to ask any questions or make any statements you would like to make.

Senator STEVENS. Thank you, Mr. Chairman. As a matter of fact, when I was chairman of the Defense Subcommittee, and chairman of the authorizing subcommittee, it was my suggestion that we start the transfer from Defense to the Coast Guard, in recognition of its military functions.

We have done that every year now. I believe that since this began, as the Admiral says, the administration has agreed with us in only one of those years.

Now, I note this year that you have a $25 million transfer from the oilspill liability trust fund, and $32 million from the boat safety account for your operating expenses. Are these new transfers?

Admiral KIME. Senator, I think the oil pollution fund transfer is consistent with what was done the previous several years, after the passage of OPA–90. The money for the boating safety account is the Wallop-Breaux transfer, and I think that has been going on. It is a shared transfer. One-half of the money goes to the Coast Guard for its recreational boating safety functions, and one-half of it goes to the States for boating safety initiatives, and the money is passed out to the States based on a three-part formula that the Coast Guard has.

DOD FUNDING REQUIRED IN FISCAL YEAR 1994

Senator STEVENS. And, last year we transferred a total of $303 million from DOD. I think that has been about the average. Some years it may have been less. But it has usually been in excess of $250 million.

I am just trying to figure out, in the arm wrestling that takes place this year, what the minimum amount is that is necessary to keep the Coast Guard at the level it has been in the past.

Now, I do not think you can answer that question now, and OMB is not going to let you submit such a request, but I think I am permitted to ask you to respond to my question on the record.

What is the minimum amount you need to maintain your activities, consistent with the current fiscal year request, as far as DOD money is concerned?

Admiral KIME. Well, I think, Senator, we believe that we need the President's budget request level to be able to do the things that we are doing.

We do not know how much money would be available, based on the 602(b) allocation, the budget resolution, in the President's budget. All of these issues are reworked in the Congress. So I can't give you an exact figure, but let me say that I do agree that in the past, the number that has been provided is in the neighborhood of $300 million in operating expenses funds.

DOD SERVICES-IN-KIND

Senator STEVENS. Is the procedure we have used in the past—making some of that available in-kind, in terms of fuel and other supplies—still agreeable with your service?

Admiral KIME. Yes; it is, Senator. That has been done in the past. The transfer has been by transfer of funds, or also services-in-kind, such as fuel from DOD facilities, spare parts, et cetera.

In the past, the maximum amount that we have been able to handle, as services-in-kind, has been about $150 million per year, reasonably. I would have to go back and provide for the record any absolute amount that we could have.

The data that we have seen so far—in 1986, there was $100 million provided as services-in-kind, $75 million in 1987, with a maximum in 1989 and 1990 of $140 million.

Senator STEVENS. When say, for instance, you have vessels standing off the Persian Gulf, where do you get fuel, or money for fuel from?

Admiral KIME. Well, at this time, we do not have any ships in the Persian Gulf, Senator, but for any defense-related operations that we have, the fuel moneys have traditionally come from Coast

Guard moneys, some of which, as you have indicated, in the past, have been a direct transfer from DOD or services-in-kind.

Senator STEVENS. Let me put it this way: If you are requested by DOD or by the DEA to assist in drug activities, do you use your money or do you use their money?

Admiral KIME. Well, the war on drugs is a cooperative effort between all the enforcement agencies, DEA, Customs, Coast Guard, INS, DOD, and others, and the funding for this has been coordinated through the Office of National Drug Control Policy, with each of the agencies expected to request the funds that they feel they will need for these programs.

Senator STEVENS. But my point is that this committee funds your activities, period, does it not?

Admiral KIME. Yes, sir; it does. The only time that we would get additional funding for our law enforcement efforts would be in training or operations overseas, special operations, where either the Department of State, the Department of Justice, or the Department of Defense would provide additional reimbursement for the actual expenses that we would incur.

VESSEL RESPONSE PLANS

Senator STEVENS. All right. Let me shift gears. Under the Oil Pollution Act you have had to review the vessel response plans, and I understand there is an August deadline, and that if these plans are not approved by August, the vessels involved cannot continue to operate.

Will you be able to complete all of the plans submitted under that act by August, or should we look to a provision that will enable a vessel that has submitted a response plan to continue to operate until you are able to process them all?

Admiral KIME. Senator, at the present time I believe we can comply with the August deadline. The plans had to be submitted by February 18, and we have received plans covering about 5,600 vessels. That is about 105 percent of the vessels that we thought we would get plans for, based on past service.

We have brought some contracting personnel on board to assist us in this, and we are doing the review on a two-tier basis. We have currently logged all the submissions into our data base, and we are doing a review, a preliminary review, to verify that they contain the key information that we need.

There are about seven areas that we are looking at, such as qualified individual, a list of response equipment, the availability of this response equipment, notification procedures, the key things.

Once we have been convinced that that information is contained in the plan, and that the submitter certifies that they do have the equipment available to them to respond to a spill, we would approve those plans for 2 years. After a more detailed review, the extent of that plan approval would be for 5 years, and then would continue on, on a basis.

We also have procedures where we can grant waivers under certain specific cases. At this time, I believe that we will be able to handle submissions by the August 18 deadline, so that ships that have made a valid effort to submit these plans, as required by February 18, will be able to continue to operate.

Senator STEVENS. All right. I just want you to know that the last vehicle I know that we could deal with that subject on before August would be the supplemental that is going through now.

So if you determine that you are not going to be able to complete them let us know. I think there is a defect in the law if vessels cannot operate even when they have submitted a plan, because it has not been approved by you by August 18.

I think if they have submitted a plan, and you have not been able to completely process that plan, that you ought to have the waiver authority to let them keep operating. My staff tells me that you do not have the waiver authority, unless you have approved the plan. They tell me you may not be able to allow a vessel to operate that does not have an approved plan. I would urge you to take a look at this. If my staff is wrong, well, we will stand corrected. But I do not want to see a glitch there. There are not a lot of them in my State, by the way. They are mostly on the east and the west coasts and the Great Lakes, as I understand it.

Admiral KIME. Let me take a look at that, Senator, and see if the information I gave you is correct. My last discussion with the people running the approval process indicated that they would be able to meet this deadline. If there is a concern that we would not be able to, or upon examination, it appears that some type of limited, and I would trust limited waiver authority is necessary, then we will get back to you before the supplemental markup.

LICENSING FISHING VESSEL OPERATORS

Senator STEVENS. All right. Thank you. You also have requested money for a Federal licensing program for commercial fishing vessels. We should have a brief discussion on this. I know you are putting the final touches on a complete licensing plan for fishermen, and that Congress has to approve it before it can become effective.

How much have you requested in this bill for the cost of the licensing program; how many fishermen are going to be affected; and what is the timeframe for implementation?

Could you give us just a brief statement now? When will we see this authority request? Would you contemplate that it would become effective in the fiscal year that this bill will cover, and do you have a projection of the costs, or will it be fully funded by the cost of the licenses?

Admiral KIME. Senator, you are correct that we do have $200,000 in the fiscal year 1994 budget request to implement a program for licensing fishing vessel operators. We do not have legislative authority for that.

That is contained in the Marine Safety Act, an administration bill that has been cleared by OMB and the Department of Transportation, and it is just waiting the formality of the Secretary's signature. I would have hoped that would have happened yesterday. I believe that it will happen today or tomorrow.

Let me tell you why we are concerned about this, Senator. The Fishing Vessel Safety Act that the Congress passed was done because of the significant risk that fishermen face at sea, and the tremendous loss of life and loss of vessels that we have seen in that industry.

One of the provisions we got was to do a study to see if we thought that licensing of fishermen would help. And we did that study, and also, working with the Fishing Safety Advisory Committee that was established under the fishing vessel safety law, we reached the conclusion that, yes, it is necessary.

We are losing about 250 vessels a year. We are losing about 100 lives. About 20 percent of the search and rescue sorties that the Coast Guard has each year are for fishing vessels.

And we feel that by implementing a licensing process that would educate the operators of the vessels, we can make a significant difference, especially when you consider that 70 percent of these vessels are lost by not having knowledge of stability considerations.

We also recognize that we have to do this in a way that does not make an undue adverse impact, economically or otherwise, on the fishing industry. We will pursue a gradual phase-in of about 7 years.

We think it is time to get started. We think it is time to wrap up this effort. We would use third parties to administer the examinations. The Coast Guard will not get involved. There would be minimal budgetary impact on the Coast Guard and minimal impact on the fishermen, from that regard. Their dealings with the Coast Guard would be by mail.

Certainly, there would be a cost associated with this, probably between $5 and $10 million, totally, for the fishing industry, per year, part of which would be user fees that the Coast Guard has implemented for issuing licenses in accordance with previous legislation.

Although the bill does not contain a provision for grandfathering of the older, more experienced people, who may not be in as great a need of licensing, and receiving the education that goes with it, we certainly would be agreeable to sitting down with the Congress, and see if there is a better approach to beginning to solve what we think is a significant problem.

Senator STEVENS. That is a revelation, the number of fatalities and accidents. Do they occur in a particular region, most of the accidents and the fatalities?

Admiral KIME. I would not single out any particular region, Senator. Certainly, off Georges Bank, the Gulf of Mexico, the northern Pacific, and the Alaskan waters—it is spread all over. I would not say that one particular sector is more in need of something like this than the other.

Senator STEVENS. It is a fairly dangerous occupation. How many fishermen are there, do we know?

Admiral KIME. Around 60,000, I would imagine, Senator. We recognize, though, that this is an industry that is depressed, and we would like to work with the industry and with the Congress to begin to do something about this, in a balanced way, that does a significant amount of good, and yet does not have a significant adverse impact on the fishing industry.

We feel that this piece of legislation is the first step, and that is why we have asked for the money in this year's bill, because if the legislation could be passed, then we could begin implementing this, and we need the funds.

Senator STEVENS. There was a time when a former Coast Guard commandant's son and my son were both at sea in the same boat in the Gulf of Alaska. We have had an ongoing interest in this subject, and I can tell you that the rate of incidents that affect the Alaskan fishing fleet as well as the Seattle fleet are very high.

They are very high. And we want to work with the Coast Guard to try and improve understanding about the conditions that bring about the loss of life at sea.

It has been several years ago now that Senator Magnuson sent me to Portugal and to Russia to study their training methods. They do require licensing, and we have never required licensing.

Senator LAUTENBERG. Is that captain licensing or all——

Senator STEVENS. Some captains already have vessel operators licenses, but by the owner's decision. But we are now talking about overall licensing, as I understand it, for the senior crew. How many would have to have licenses on a vessel?

Admiral KIME. We are normally concerned with the master of the vessel, Senator. I think that is a good beginning point, that the person in charge of the navigation of the vessel would have the license.

This is not getting into the industrial part of the operation of catching fish. It is mainly stability, fire safety, and flooding prevention.

MILITARY CONSTRUCTION FUND

Senator STEVENS. Yes; well, I thank you very much for that. I do have one last question, though, and that is: When we have used defense funds in the past, have we ever transferred funds from the military construction budget?

Have you ever looked at your construction requirements to determine if any of them are driven by defense considerations, in terms of design or operation, or to meet national defense responsibilities in times of crisis?

Admiral KIME. As part of the budget justification last year, Senator, when we submitted the budget, the President's budget did include defense funds, and that was looked at. It is very difficult, because of the multimission nature of the Coast Guard, to slice that out.

I think during congressional deliberations, the military construction fund was looked at, also, but I believe you are correct that funds have never been made available to the Coast Guard for that. We could certainly take another look at that, if that is your desire.

Senator STEVENS. You have security considerations that must be part of your Defense Department requirements, as I understand it——

Admiral KIME. Yes, sir.

Senator STEVENS [continuing]. In terms of access and protection of both your vessels and your bases. It seems to me that there ought to be some consideration given to whether or not some of those costs should come from defense funds, when they are really to meet defense objectives.

If you were part of a routine agency that did not wear uniforms, and did not have defense responsibilities, there are some costs you would not incur.

Now, the Department of Transportation building itself, in my judgment, does not have the same security considerations as a DOD building, in terms of its construction and its basic operation.

But no matter where we go, we find that you have security posts, you have fencing, you have a lot of other things that are required, I think, to protect assets that have a semimilitary value, and I think we ought to look to that construction account to see if we cannot find some additional funds for a Coast Guard transfer.

So would you please have your people tell me if there is any way we can identify such costs? It might mean that it is necessary to make this transfer from two different budgets this year.

Admiral KIME. We will certainly do that, Senator, and forward it to the committee.

[The information follows:]

There are several projects in the shore construction category of the Coast Guard's fiscal year 1994 Acquisition, Construction and Improvement's [AC&I] appropriations that either directly or indirectly support defense related missions and DOD personnel. The total cost of these projects is $72.3 million.

There is a fiscal year 1994 AC&I shore project to close overseas Loran navigation stations ($1.5M) that were operated exclusively in support of DOD missions. Communications Area Master Station resources ($4.4M) support DOD assets for high frequency radio communications. DOD aircraft are regular users of facilities at Coast Guard air stations in Elizabeth City, NC ($2.8M) and Kodiak, AK ($6.1M). Pier 37 at Support Center Seattle ($10M) berths the Nation's only two icebreakers capable of supporting naval operations in the polar regions.

Three new medical/dental facilities ($10.7M total) will be available to active duty military members from all services. The Coast Guard Yard shiplift facility ($5M) would be accessible if available for routine and emergency maintenance on Navy ships.

Finally, public family quarters ($22M) is directly related to sustaining our military work force and Training Center Cape May ($9.8M total) is critical in developing and preserving the military character and skills of these active duty members.

BASE CLOSURE OPPORTUNITIES

Senator LAUTENBERG. Another consideration that this brings up is, that as the Base Realignment Commission goes through its consideration, are there any facilities that are presently navy that might be available to the Coast Guard, and that might be helpful to you? I think you ought to take a look at that.

Senator STEVENS. Thank you very much. I have been called to the floor. Sorry.

Admiral KIME. Thank you, Senator.

Senator LAUTENBERG. Thank you very much.

Admiral KIME. Mr. Chairman, we continually look at the defense closure list that is going to be finalized this summer, to see the impact on the Coast Guard.

So far, we have found very little that would be of use to us, as far as facilities are concerned, because of the very large size of these facilities that are closing. In fact, most of the impact is going to be adverse.

They are going to be closing, at least according to the preliminary list, three facilities where we have Coast Guard air stations that are very, very important.

There are many other places where we depend on them for industrial support. The cost of that support is now going to go up; and we also obtain support for our people from commissaries, ex-changes, medical care, and things of that nature. But certainly, we are constantly looking to see if there are any facilities available.

As you know, we recently worked very closely with the people at Fort Dix, and we have now identified property up there where we can permanently locate a National Strike Force team. But for the most part, this is not a source of shore-side resources for the Coast Guard.

SUBMITTED QUESTIONS

Senator LAUTENBERG. Thank you very much for your testimony this morning. We will submit additional questions to be answered for the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

MARINE SAFETY

ACCOUNTABILITY IN VESSEL INSPECTION PROGRAM - M/V ADVANCE

(001) SENATOR LAUTENBERG: This past January, Coast Guard marine inspectors in Hampton Roads, Virginia boarded a multi-flagged cargo ship named M/V ADVANCE. A Coast Guard official characterized the ship's condition as "deplorable." According to press coverage of the episode, the ship's deck was one long sheet of rust. There were holes in the deck; major structural parts of the ship were severely corroded; fire pumps did not work; life boats couldn't be released; stairs were rusted through; and sewage pipes emptied into the engine room. This same vessel had been boarded by marine inspectors in Miami less than 16 months prior to her Hampton Roads port call.

Please describe your contacts with Lloyd's Register of Shipping and the Government of Malta regarding the M/V ADVANCE.

ADMIRAL KIME: The M/V ADVANCE was boarded by the Coast Guard Marine Safety Office, Hampton Roads, VA on January 8, 1993. Deficiencies were discovered which led to formal intervention action being taken under the authority of the International Convention for the Safety of Life at Sea. Intervention action was initiated on January 15, 1993. Representatives of the vessel's classification society, Lloyd's Register of Shipping, were present on the vessel during the Coast Guard boarding. They were advised of the Coast Guard's findings and actions as the situation progressed. They were not only helpful in identifying safety and material deficiencies, but proactive in getting the corrections implemented.

Mr. A. M. Falzon, First Secretary and Consul, Embassy of Malta, Washington, D.C., was informed of the conditions found on the M/V ADVANCE and the Coast Guard actions taken. In addition to informing Mr. Falzon via letters, personnel from our Hampton Roads office had several telephone conversations discussing M/V ADVANCE.

In addition to maintaining regular contact with Mr. Falzon, we advised the State Department of the M/V ADVANCE situation. The Maltese Maritime Authority then ordered that the M/V ADVANCE cease to be registered as a Maltese ship. However, we requested the State Department advise Malta that we expected their assistance in satisfactorily resolving the M/V ADVANCE issues. This was done via a State Department message to the U.S. Embassy in Malta which resulted in a demarche being issued to the Maltese government.

As this is an ongoing case, we continue to have contacts with both Lloyd's Register of Shipping and the Government of Malta regarding the M/V ADVANCE.

(002) SENATOR LAUTENBERG: Please provide copies of correspondence between the relevant Coast Guard personnel and the Lloyd's Register of Shipping regarding the M/V ADVANCE, as well as correspondence between the Coast Guard and the Government of Malta.

ADMIRAL KIME: Representatives of the vessel's classification society, Lloyd's Register of Shipping, were present on the vessel during the Coast Guard boarding of the M/V ADVANCE. Although we have discussed, and continue to discuss the situation with these representatives, we do not have correspondence in this matter between the Coast Guard and Lloyd's Register of Shipping.

In addition to several telephone conversations discussing M/V ADVANCE with Mr. A. M. Falzon, First Secretary and Consul, Embassy of Malta, Washington, D.C., we have provided him with formal notification via letter of the conditions found on the M/V ADVANCE and the Coast Guard actions taken. Copies of the correspondence are provided for information.

Additionally, the Government of Malta was advised of our dissatisfaction in a demarche from the U.S. Embassy in Valletta. This demarche was based on a message drafted by the Coast Guard and the Department of State (DOS) in Washington, D.C. The DOS message is a classified document.

U.S. Department
of Transportation

United States
Coast Guard

Commanding Officer
U S Coast Guard
Marine Safety Office

200 Granby Street
Norfolk, VA 23510-1888
Staff Symbol Inspections
Phone. (804) 441-3287

16671
January 15, 1993

Mr. A. M. Falzon
First Secretary and Consul
Embassy of Malta
2017 Connecticut Avenue, N.W.
Washington, DC 20008

Dear Sir:

On January 8, 1993, as a result of a routine Port Safety examination, several serious safety discrepancies were discovered aboard the M/V ADVANCE, L7341867. Subsequent, more detailed, inspections have revealed additional serious safety discrepancies. The discrepancies were severe enough that I have issued a Captain of the Port Order restricting the movement of the vessel within the port until corrective action has been taken and documented by your government or a classification society authorized to act on behalf of your government. Thus far, the officers and crew have made no serious effort to correct the discrepancies, nor have they contacted the classification society, Lloyds Register. Enclosure (1) is a list of the deficiencies.

In accordance with Regulation I/19 of the International Convention for the Safety of Life at Sea, 1973 (SOLAS), I am hereby taking effective control of the M/V ADVANCE. The vessel may not depart the Port of Hampton Roads until I am in receipt of documentation that you are satisfied the vessel has been re-surveyed and that the SOLAS Safety Equipment Certificate and Safety Construction Certificates are valid. Additionally, the certificate required by the International Convention for the Prevention of Pollution from Ships (MARPOL) is invalid due to being overdue for periodic survey.

Sincerely,

G. J. E. THORNTON
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Encl: (1) SOLAS Deficiency List for M/V ADVANCE

Copy: Lloyds Register
Master M/V ADVANCE

Enclosure (1) to SOLAS Intervention LTR.

SOLAS DEFICIENCIES

M/V ADVANCE

CERTIFICATES:

1.- International Oil Pollution Prevention Certificate invalid.
MARPOL 73/78

2.- Safe Manning Certificate not on board.
SOLAS CHAP V REG 13 AMMENDED FEB 92

NAVIGATION:

3.- Echo Depth Sounding Device and Echo Depth Sounding Continuous Recorder not operational.
SOLAS CHAP V REG 12 (k)

FIRE-FIGHTING:

4.- Fire Main on deck has numerous holes in it and has wasted Dresser couplings; Five fire hoses (of the 10 required) need replacement; Portable fire extinguishers out of date; Fixed fire extinguisher systems out of date for inspection & have cylinders empty & missing; Valves are missing on fire stations on the 03 deck; Support brackets on fire main on deck are severely wasted; #2 Fire pump inoperative; Emergency fire pump inoperative.
SOLAS CHAP II-2 REG 4

ENGINEERING:

5.- Marine Sanitation Device (MSD) inoperative.
SOLAS CHAP I REG 11

6.- OILY-WATER Separator (OWS) inoperative.
MARPOL 73/78

7.- Sanitary Pump for MSD leaking.
SOLAS CHAP I REG 11

8.- On main engine, the jacket water cooling water outlet is leaking from the top weld and has a hole in it packed with okum.
SOLAS CHAP II-1 REG 26

9.- OWS O/B discharge valve leaking and not locked.
SOLAS CHAP I REG 11

10.- Fuel oil leak on distribution manifold in engine room.
SOLAS CHAP I REG 11

11.- On Main Engine, the main circulating water discharge pipe holed between cut-out valve and pump.
SOLAS CHAP II-1 REG 26

12.- One of three ships service diesel generators (SSDG) inoperative.
SOLAS CHAP I REG 11

13.- Deck plates and ladders in engine room, shaft alley, after steering loose and oily creating a slip hazard and guard rails missing.
SOLAS CHAP I REG 11

14.- Water pump at OWS missing a guard over rotating machinery.
SOLAS CHAP I REG 11

15.- A hole in soil/waste line behind sewage tank leaking in engine room. Same line has leaking soft patch on upper level.
SOLAS CHAP I REG 11

16.- Holed piping for over board discharge from heat exchanger (behind OILY-WATER separator) in engine room.
SOLAS CHAP I REG 11

17.- Two (holed and wasted) sections of pipe on steam condenser unit to boiler.
SOLAS CHAP I REG 11

DECK (LIFESAVING)

18.- Liferafts not properly secured/installed (missing hydrostatic release and weak links) also one raft missing inspection certification.
SOLAS CHAP III REG 38

19.- Lights attached to ring life buoys inoperative.
SOLAS CHAP III REG 31

20.- Motor life boat - repair cracks in hull in buoyancy compartment.
SOLAS CHAP III REG 41

21.- Motor life boat - install aft seat and brackets.
SOLAS CHAP III REG 41

22.- Motor life boat - remove rag and install proper cap on spare fuel tank (or replace it).
SOLAS CHAP III REG 41

23.- Motor life boat - install proper weather tight and fire retardant cover for the engine.
SOLAS CHAP III REG 41

24.- Motor life boat - replace broken exhaust pipe at through hull fitting.
SOLAS CHAP III REG 41

25.- Life Boat(port side) - Replace the broken grab lines (fore and aft) for the releasing device.
SOLAS CHAP III REG 41

26.- Replace securing straps on the port lifeboat.
SOLAS CHAP III REG 41

27.- Life Boat (port) - replace aft sheave.
SOLAS CHAP III REG 41

28.- Life Boat (port) - replace manrope cable. replace shackles and plate on forward davit.
SOLAS CHAP III REG 41

29.- Life Boat (port) - free up all boat gripes.
SOLAS CHAP III REG 41

30.- Motor Life Boat (stbd) - free up all boat gripes.
SOLAS CHAP III REG 41

ELECTRICAL:

31.- Numerous protective covers over lighting in machinery spaces missing; Numerous light bulbs missing; engine room missing; Numerous lights on deck filled with water creating a hazard.
SOLAS CHAP II-1 REG 45

STRUCTURAL:

32.- Forepeak tank has a hole in it on the port side fifth level where the stem and shell plating meet with sea water leaking in.
SOLAS CHAP II-1 REG 10

33.- Forepeak tank, the third vertical stiffener and bracket is bent.
SOLAS CHAP I REG 11

34.- Forepeak tank, the longitudinal and center line girders on the first level (port side) are wasted thin. (flanges are wasted away)
SOLAS CHAP I REG 11

35.- Forepeak tank, the port and starboard side brackets are wasted away and need replacement.
SOLAS CHAP I REG 11

36.- Remove doubler on stbd side forepeak tank and three vertical stiffeners and insert properly.
SOLAS CHAP I REG 11

BRIDGE:

37.- Replace smoke signals (distress signals) on bridge wings.
SOLAS CHAP III REG 30

38.- Replace bracket for stowing port bridge wing smoke signal.
SOLAS CHAP III REG 30

39.- On the bridge, replace expired life smoke MK VIII daylight buoyant orange smoke signals.
SOLAS CHAP III REG 30

40.- On the bridge, replace four expired rockets for line throwing gun.
SOLAS CHAP III REG 30

41.- Water tight door to forward BOS'N stores - install gasket.
SOLAS CHAP II-1 REG 18

42.- Vents (three) on forward deck house (boom control house) are severely wasted. Need replacement.
SOLAS CHAP II-2 REG 16

43.- Repair broken and missing rails on the forward and aft deck house (boom control house).
SOLAS CHAP I REG 11

44.- Fuel oil vent piping on bunkering stations needs replacement port and stbd side.
SOLAS CHAP II-2 REG 15

45.- Provide plug for bunkering containment on stbd side.
SOLAS CHAP II-2 REG 15

46.- Install flame screens on all fuel/bunker vents.
SOLAS CHAP II-2 REG 15

47.- Repair fire damper and demonstrate proper use on 03 level stbd side.
SOLAS CHAP II-2 REG 16

48.- Replace vent louvers and housing on 03 deck stbd side.
SOLAS CHAP II-2 REG 16

49.- Repair holes in machinery space vent port side 03 level.
SOLAS CHAP II-2 REG 16

50.- Replace blank flanges on the fuel bunkering station and install proper number of bolts (minimum of four).
SOLAS CHAP II-2 REG 15

51.- Hatch Covers - skirts on hatch covers wasted preventing Water tight integrity. Repair or replace them.
SOLAS CHAP I REG 11

52.- Replace vent pipe (blue) aft of hold #5 port side - the pipe is holed.
SOLAS CHAP II-2 REG 16

53.- Replace gasket and fire damper in ventilation in aft cargo hold.
SOLAS CHAP II-2 REG 16

54.- Reinstall door to port side accommodation ladder entrance.
SOLAS CHAP I REG 11

55.- Remove oil from lube oil vent containment port side forward of the accommodation ladder.
SOLAS CHAP II-2 REG 15

56.- Install a mechanical means of securing drain hole in containment around fuel oil vent pipes port side forward.
SOLAS CHAP II-2 REG 15

57.- Repair/replace fire damper port side of #3 hold.
SOLAS CHAP II-2 REG 16

58.- Replace gasket and channel on the trunk forward near the anchor windlass.
SOLAS CHAP II-1 REG 19

59.- Replace fire damper on port side of stack.
SOLAS CHAP II-2 REG 16

60.- Replace vent pipe from lube oil tank port side of stack.
SOLAS CHAP II-2 REG 16

61.- Demonstrate proper operation of all weather deck fire dampers.
SOLAS CHAP II-2 REG 16

62.- Repair supply air vent for crew spaces 03 deck port side.
SOLAS CHAP II-2 REG 16

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16711
March 5, 1993

Mr. A. M. Falzon
First Secretary and Consul
Embassy of Malta
2017 Connecticut Avenue, N.W.
Washington, DC 21000

Dear Mr. Falzon:

I have received information which causes me grave concern regarding the safety and well being of the crew of the M/V ADVANCE. I now have evidence of discrepancies which fall under the International Labor Organization Convention, concerning Minimum Standards in Merchant Ships (ILO 147).

After the initial discovery on February 9, 1993 that raw sewage was being dumped into the engine room bilges, my personnel advised Mr. Ramos the Master, Mr. Palma (owners representative on board), and the agent of our concern for the health of the crew of the ADVANCE. We made it clear that we were to be informed of any health problems on the vessel, including visits to a physician by any member of the crew.

Representatives of my office have repeatedly questioned the Master, Mr. Palma, and the agent concerning these matters, and have been assured that there are no health problems.

On March 2, 1993, Coast Guard boarding officers aboard the M/V ADVANCE, received the information listed in enclosure (1).

Representatives of my office have verified some of the claims noted in enclosure (1) and I believe, the Master and the company representative, Mr. Palma, have intentionally deceived my personnel about conditions on the vessel. I am requiring immediate action on the part of the owners to provide a safe and healthy work environment for the crew. I request your assistance in gaining full compliance with ILO 147.

In accordance with the ILO 147, I am restricting any movement within the Port of Hampton Roads prior to resolution of all health and safety deficiencies listed in enclosure (1) aboard the M/V ADVANCE. The vessel may not depart the Port of Hampton Roads until I am satisfied that all health and safety discrepancies under ILO 147 have been corrected.

Sincerely,

G. J. E. Thornton

G. J. E. THORNTON
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Encl: (1) List of Suspected ILO 147 Discrepancies

Copy: CGD5 (mpv)
Commandant (G-MVI)
Master, M/V ADVANCE
Kerr Steamship Co. Inc.

Encl (1) to OCMI Hampton Roads letter of 5 March 1993.

List of Suspected ILO 147 Discrepancies

1. The chief cook was seriously ill and had an allergic reaction to penicillin, which was administered by one of the ships officers, He subsequently coughed up blood and was taken by ships personnel to a doctor on several occasions without the knowledge of the agent or the Coast Guard.

2. A wiper has serious skin rashes and lesions and has not been permitted to see a doctor after repeated requests.

3. A seaman with a large and painful boil has been refused permission to see a doctor.

4. A second cook has been having intestinal problems, including worms or parasites. His requests to see a doctor have been denied.

5. A seaman has had severe diarrhea for ten days and has not been permitted to see a doctor.

6. One seaman who was permitted to see a doctor three weeks ago for severe skin rash still has the rash and skin lesions and is still in need of medical treatment.

7. The stowaway has not been permitted a shower in more than six days.

8. A wiper is being forced to work 16 hours a day.

9. Numerous crew members are being forced to work 12 to 16 hours a day in punishment for talking to the Coast Guard personnel. Crewmen feel they have inadequate rest to perform duties.

10. Crew members are being forced to paint in spaces with inadequate ventilation, no respiratory protection, and inadequate lighting.

11. The crew does not have a washing machine to launder clothes which is contributing to the unsanitary conditions on the vessel and illness in the crew.

12. Crew members are punished with extra duties when they ask for consideration in safety or working conditions.

13. There are pay and contract problems - there are allegations that the master and the owner are not honoring seamen's rights.

14. Raw sewage was intentionally dumped in the engine room bilges. Personnel are forced to work in the bilges which have not been properly sanitized.

15. The drinking water was contaminated, contributing to health problems aboard the vessel. The aft peak water tank is holed adjacent to the number five cargo hold leading to water contamination.

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16711
March 12, 1993

Mr. A. M. Falzon
First Secretary and Consul
Embassy of Malta
2017 Connecticut Avenue, N.W.
Washington, DC 21000

Dear Mr. Falzon:

This morning I attended a meeting aboard the M/V ADVANCE with the vessel's master, company representative, attorney, agent, and repair contractor. A representative of Lloyds Register, representing the classication society and your government was also aboard. The purpose of the meeting was to assess progress on resolving problems pointed out in my letter of March 5, 1993, concerning potential problems in compliance with the provisions of the Minimum Standards in Merchant Ships under the International Labor Organization Convention (ILO 147).

I am very pleased with the progress made on resolving the health and safety issues aboard the vessel. Consequently, I now have no serious health concerns regarding the M/V ADVANCE.

I am hereby lifting my restriction on the vessels' movement based on ILO 147 requirements. However, the M/V ADVANCE's movement within the Port of Hampton Roads is still restricted under the SOLAS Intervention and my Captain of the Port Order #93-004 dated January 12, 1993.

Thank you for your assistance in the resolution of these health concerns. I look forward to further discussion with you on the resolution of the structural and safety deficiencies of the M/V ADVANCE, and issues such as safe manning levels, training, and reported contract problems.

Sincerely,

G. J. E. THORNTON
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Copy: CGD5 (mpv)
Commandant (G-MVI)
Master, M/V ADVANCE
Kerr Steamship Co. Inc.

U.S. Department
of Transportation

United States
Coast Guard

Commanding Officer
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Marine Safety Office

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Norfolk, VA 23510-1888
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Phone: (804) 441-3287

16671
April 30, 1993

Mr. A. M. Falzon
First Secretary and Consul
Embassy of Malta
2017 Connecticut Avenue, N.W.
Washington, DC 20008

Dear Sir:

I have received interim Load Line, Safety Equipment, and Safety Construction Certificates from Lloyd's Register, on behalf of the Government of Malta. These certificates authorize a single transit to Baltimore, MD.

Captain of the Port SOLAS Intervention letter dated January 15, 1993, is hereby cancelled.

Sincerely,

G.J.E. THORNTON
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

copies: Commandant (G-MVI)
CGD5 (mpv)
U. S. Customs Service
Master, M/V ADVANCE
Kerr Steamship Inc.

(003)SENATOR LAUTENBERG: What explanation, if any, was given by Lloyd's Register of Shipping and the Government of Malta for the condition of the M/V ADVANCE?

ADMIRAL KIME: We have not received any explanation from Lloyd's Register of Shipping or the Government of Malta for the condition of the M/V ADVANCE. We are presently working with Lloyd's Register of Shipping and the Government of Malta to resolve the situation which has resulted in the detention of the vessel in Baltimore.

Once the vessel is released from detention, we expect to have further communications with both Lloyd's Register of Shipping and the Government of Malta concerning how and why the vessel came to be in the condition which required Coast Guard control action.

(004) SENATOR LAUTENBERG: Admiral, you stated in your verbal remarks that you intended to review the situation regarding the Coast Guard boarding of the M/V ADVANCE in Miami, as to what the condition of the ship was when it was boarded.

Given your observations that, "It takes a great deal of time and a great deal of neglect" for a ship to fall into the condition that was found on the M/V ADVANCE in Hampton Roads, what do you conclude regarding the adequacy of the boarding of the vessel in Miami?

ADMIRAL KIME: The M/V ADVANCE was boarded by the Coast Guard Marine Safety Office in Miami, FL on September 18 & 21, 1991. The echo depth sounder was inoperative, the vessel did not have a copy of the Inland Navigational Rules of the Road, and the vessel's maneuvering fact sheet was missing the warning statement. The rules of the road was obtained and the maneuvering fact sheet was corrected. A letter of deviation was issued notifying the vessel not to return to the COTP Miami zone until the echo depth sounder was repaired. Importantly, all required SOLAS, MARPOL 73/78 and other certificates were onboard and up to date.

The intent of the Miami boarding was to ensure that the flag state was meeting its obligations under the international conventions and that the vessel met applicable U.S. laws. With all certificates current and no deficiencies discovered which would prevent the vessel from meeting minimum standards, the vessel was allowed to proceed without a more thorough inspection of its hull and equipment. Based on the vessel's records and the conditions found, the scope of the boarding in Miami was appropriate.

In the ensuing 16 months the old, and new owners/operators, failed to maintain the vessel in a seaworthy condition, failed to schedule the required classification society surveys and failed to follow the advice of the classification society to make necessary repairs. Items that met minimum standards at the Miami boarding fell well below standards by the time of the Hampton Roads boarding. Items that were not uncovered during the routine boarding in Miami were discovered in the Hampton Roads boarding, which was more thorough due to the clear evidence of problems on the ship.

To better understand the actions taken at both the Miami and the Hampton Roads boardings, it is important to review the vessel's background. The M/V ADVANCE is a nineteen year old vessel which has made only three port calls to the United States. The Coast Guard has boarded the vessel each time. The vessel was first boarded by the Marine Safety Office in New Orleans, LA on April 27 & 30, 1991. The M/V ADVANCE had suffered a loss of steering and was cited for not having an echo depth sounder recording device onboard. A steering pump was required to be overhauled and the vessel proceeded without further incident. The M/V ADVANCE was sold in October 1992 to Denver Shipping Corp., Caracas, VZ, and was operated by Resertec, Guayaquil, Ecuador. The vessel is Maltese flag and classed by Lloyd's Register of Shipping.

The first U.S. port of call after the change of owner and operator was Hampton Roads, VA on January 3, 1993. An annual examination was conducted by a Coast Guard boarding team from Marine Safety Office Hampton Roads. This was a higher priority boarding because the vessel had changed owner/operators and had not been in the U.S. or boarded since September 1991, a period of 16 months. The boarding team found that the vessel's International Oil Pollution Prevention Certificate was invalid and Safe Manning Certificate was not on board. The vessel had not completed the required intermediate MARPOL survey. An initial examination of the vessel found numerous material and safety deficiencies, including salt water and fuel oil leaks in the engine room, life rafts stowed improperly, cracks in the motor lifeboat, holes in the firemain and defective fire hoses. A Captain of the Port order was issued prohibiting the vessel's movement until all deficiencies were corrected to the satisfaction of the vessel's flag state and classification society.

The M/V ADVANCE is a classic example of a substandard vessel. As I have stated on numerous occasions, the owner and operator of the vessel are primarily responsible for providing for a safe, well maintained vessel and an adequately trained crew. The classification society is responsible to assist the owner in maintaining the vessel in a safe condition. The flag state is responsible for assuring that the vessel is in compliance with applicable international laws and treaties. The United States, as the port state in this instance, is responsible to ensure that the previously mentioned parties have adequately carried out their responsibilities. It is apparent in the case of the M/V ADVANCE, that the new owner/operators of the vessel failed to maintain the vessel in a seaworthy condition, they failed to schedule the required classification society surveys and failed to follow the advice of the classification society to effect necessary repairs. This demonstrates how a complex commercial vessel can deteriorate if proper maintenance and adequate management are not conducted. It is evidence of the continued need for both a strong U.S. port state control posture and involvement in this area at the international level.

(005) SENATOR LAUTENBERG: What measures do you take to hold your Captains of the Port accountable when it is clear that they have let delinquent ships enter and leave their port?

ADMIRAL KIME: Our Captains of the Port, like all Coast Guard personnel, are responsible for their actions. Captains of the Port receive periodic performance evaluations. If a Captain of the Port negligently or knowingly let a delinquent vessel enter and leave his/her port, this action would be reflected in his/her performance evaluation. Suitability to exercise the authorities of the position would be closely examined and depending upon the details in any such situation, measures could be taken to otherwise discipline or relieve a Captain of the Port of his duties.

(006)SENATOR LAUTENBERG: Please tell us what steps have been taken with your Marine Safety Office in Miami to get an explanation for how the M/V ADVANCE was allowed to enter and leave the port without its deficiencies detected.

ADMIRAL KIME: We have reviewed the M/V ADVANCE's MSIS record and discussed the case with Marine Safety Office, Miami personnel. The Marine Safety Office followed current procedures for the examination of a foreign freight vessel.

During the Coast Guard boarding of the M/V ADVANCE in Miami, deficiencies were noted and appropriate action was taken. It is important to note that all required SOLAS, MARPOL 73/78 and other international certificates were onboard and up to date. The intent of the boarding was to ensure that the flag state was meeting its obligations under the international conventions and that the vessel met applicable U.S. laws. With all certificates current and no deficiencies discovered which would establish "clear grounds" for expanding the scope of the inspection, the vessel was allowed to proceed.

(007) SENATOR LAUTENBERG: Is there a formalized procedure within the "M" program through which a COTP is to report deficiencies of other COTPs when they are detected? If so, please provide data on the frequency with which such procedures are utilized. If not, why not?

ADMIRAL KIME: The "M" program does not have a formalized procedure through which a Captain Of The Port (COTP) must report deficiencies of other COTPs. However, there is both a formal chain of command and an informal communications network between COTPs. This includes Coast Guard District Marine Safety Division Chiefs and Coast Guard Headquarters "M" Division Chiefs.

(008) SENATOR LAUTENBERG: Please describe how the Commandant's "TQM" initiative has been brought to bear to enhance the accountability of COTPs for their marine inspection/boarding activities.

ADMIRAL KIME: Last year, a "TQM" natural working group was formed to assess these activities. They produced data matrices which indicate operational activity of the Marine Safety Offices including deficiency and violation data. This information is in the process of being validated. This data will be sorted by the Marine Safety Offices as the basis for measures of effectiveness, trend analysis, and comparisons between units. When fully implemented, the data should be able to be analyzed for inconsistencies in marine inspection/boarding activities between various COTPs.

(009) SENATOR LAUTENBERG: Is it reasonable, if one was to conclude that there was sufficient evidence that the ADVANCE was inappropriately handled in Miami, that this problem would impact the performance evaluations of personnel in Miami?

ADMIRAL KIME: If the M/V ADVANCE had been inappropriately handled in Miami, it could have had an impact on the performance evaluations of personnel in Miami. However, as I've stated before, the boarding and actions taken by MSO Miami in regard to the M/V ADVANCE were appropriate.

(010) SENATOR LAUTENBERG: To what degree do you believe that the diligence or lack of diligence of the COTP and other MSO personnel in appropriately handling substandard ships should impact the relevant persons performance evaluation? How would the individual preparing each evaluation ever know that another port found indications that he or she demonstrated inadequate care in their inspection/boarding duties?

ADMIRAL KIME: The degree of impact in a person's performance evaluation would be judged by the individual's supervisior and other superiors, and depends on the circumstances of the case. Our COTP's and other MSO personnel are held accountable for their actions in the performance of duty.

Generally, the performance evaluations for COTP's are completed by the Chief of the Marine Safety Division (m) at the district level, who oversees the execution of programs at the field unit level. These officers are in frequent communication and often visit with COTP's within their respective districts. As situations occur involving response actions or vessel detentions due to deficiencies, the COTP often consults with the district (m) officer, who may then evaluate COTP actions.

MARINE SAFETY MANAGEMENT

(011) SENATOR LAUTENBERG: Last year the Coast Guard undertook a number of initiatives to better assist the Marine Safety program managers in their efforts to evaluate the field's performance. This was initiated through (1) internal program measures of efficiency and effectiveness, (2) the enhancement of Information Enforcement data, and (3) the use of "Quality" oversight teams dispatched to field offices. Please describe in detail the results of these efforts. What changes, if any, are necessary based on these results? What changes have already been implemented?

ADMIRAL KIME: The Marine Safety program has made significant progress this year in their pursuit of internal program measures of efficiency and effectiveness. They have contracted with Battelle's Pacific Northwestern Laboratory to conduct a comprehensive study to assess the effectiveness of the current Coast Guard pollution prevention and enforcement program. This contract will focus on how to improve the overall effectiveness of the program. The study will provide the managers of the Marine Safety program with a benchmark and a method by which the program can be evaluated. To date, Battelle has built a database and created data sets for: spills, activities, violations, casualties and exposure; they have also constructed utility reports, and they have provided graphics demonstrating the preliminary data use from their database.

In addition to the Battelle project, the Office of Marine Safety, Security and Environmental Protection is in the early stages of developing an in-depth study of select program activities with Sandia National Labs. One of the main objectives of this study is to develop and implement measure of effectiveness (MOE's) for the Coast Guard marine safety activities. The specific activities have yet to be identified; however, the scope of the project is defined by the regulatory enforcement of deep draft vessels entering U. S. ports; specifically, it concentrates on those activities which involve vessel boardings and inspections.

Finally, each division from the Office of Marine Safety, Security and Environmental Protection completed a management measurement workshop. From this workshop, each division developed preliminary MOE's which they will evaluate for usefulness and cost effectiveness. Once the divisions are satisfied that the MOE's are viable indicators of their responsibilities, the Office of Marine Safety, Security and Environmental Security will ask Sandia Labs to test the MOE's as to their analytical value.

The creation of MOE's is in the development stages and as such has not yet produced any indicators which would dictate the need to implement changes in the Marine Safety program. We anticipate, however, that as the aforementioned projects evolve and produce MOE's, that these measures will be adopted throughout the Marine Safety program.

We have increased our emphasis on proper analysis of the marine safety program data. The Office of Marine Safety, Security and Environmental Protection developed their "Program Activity Matrices" capturing various activity and enforcement data at the national, district and unit level. The critical analysis and evaluation of that data will provide necessary managerial oversight of the various marine safety activities. The changes that have been identified and implemented based on the results of this analysis effort include: a review of the MSIS data fields for deletion of obsolete or limited value data sets; the addition of selected data required for efficient oversight not now being captured in MSIS, and the training of a cadre of hand selected analysts on databases.

In May 1992 the Office of Marine Safety, Security and Environmental Protection began using Quality oversight teams to travel to Marine Safety Offices to provide policy guidance on the enforcement of MARPOL ANNEX V regulations. The program continues and consists of oversight teams accompanying field personnel on vessel boardings and facility inspections to observe procedures in conducting MARPOL ANNEX V compliance checks. The use of Quality oversight teams has resulted in a stronger MARPOL enforcement program. The oversight teams have trained personnel from 16 field units and district offices in the 1st, 5th, 7th, 11th and 13th districts. During the visits, the oversight teams were able to clarify MARPOL guidance and improve the overall communication between headquarters, districts and field units.

The Quality oversight teams identified a need to improve coordination between the USDA's Animal and Plant Health Inspection Service (APHIS) and the Captain of the Port (COTP) staffs. Three-way meetings were initiated with local APHIS personnel, COTP staff and headquarters Quality oversight team during visits. These meetings clarified the coordination agreement between the USCG and APHIS on MARPOL enforcement. In addition, the oversight teams corrected weaknesses they found in some field unit's Certificate of Adequacy (COA) programs by working with them to assure all applicable facilities were certified and by purging all invalid COA's from the record keeping systems. The Quality oversight teams will continue to monitor and train the remaining districts. In addition, we are exploring the use of Quality oversight teams for other marine safety activities.

In addition to the three questions already addressed I'd like to inform you of another program we've started this year in which our Traveling Inspection and Evaluation staff commenced visiting the various district office marine safety staffs. The purpose of the Traveling Inspection and Evaluation staff's visits, is to evaluate, in consultation with the district marine safety staffs, the ability of the district's field units to execute the various enforcement activities and determine what actions may be needed to remedy any shortcomings. The Traveling Inspection and Evaluation staff has already completed trips to the 1st and 8th districts and will continue their visits to the remaining districts over the next year.

(012) SENATOR LAUTENBERG: Please update the marine safety enforcement data provided in last years record indicating the frequency with which the Coast Guard has used each of the various enforcement tools available.

ADMIRAL KIME: The number of enforcement actions used by the Coast Guard for FY 1989 through FY 1992 is shown in the table below.

A revised Port Safety Module on the Marine Safety Information System (MSIS) was used to collect the data for FY 1992. The reduction in control actions and detentions for FY92 has not been totally validated. Inconsistencies in the use of this module revision have resulted in data that was initially inconclusive.

An initial review of the FY 1992 enforcement actions in MSIS showed a significant decline from what was reported in previous years. Because it was felt that accurate data was not available from MSIS, data from the data call was used. However, the data call did not cover all of FY 1992. Since the data available from the data call appears to better match our previous results, it appears that enforcement actions are being under reported into MSIS by field units. Training visits by headquarters personnel to two major marine safety units confirmed this assumption. To better educate personnel using this system we have expanded guidance and training to the field units and training at Reserve Training Center Yorktown.

ENFORCEMENT ACTION	FY 1989	FY 1990	FY 1991	FY 1992
Daylight Transit Only	27	16	20	12**
Ordered to Depart Port	8	3	3	0***
Repair Before Cargo Transfer	159	206	143	98**
Repair Before Departing Port	966	902	607	476**
Repair Before U.S. Port Call	721	543	378	316**
Operations with Restrictions	71	44	61	34**
Vessel Denied Entry	0	8	0	14*
Vessel Detained	196	252	474	282*
Vessel Accompanied by Tugs	25	13	52	17**
Permit to Proceed	130	160	154	123***
Suspend Vessel Certificate	46	56	36	34***
Letter of Undertaking	Information not available			136*
Totals	2349	2203	1928	1542

* Data from specific field survey (data call) questions for the period from 1 March 1992 to 28 February 1993.

** Data from the field survey (data call) category "other" for the period 1 March 1992 to 28 February 1993, distributed according to historical data.

*** FY 92 data from MSIS verified as correct.

FISCAL YEAR 1990 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	1547	2438	2045	2011	5694	1028	1631	1136	657	581
BOARDINGS WHERE VIOLATIONS DETECTED	476	165	579	477	1899	148	547	266	197	156
BOARDINGS WITH CONTROL ACTION	470	59	188	233	927	64	47	54	123	38
BOARDINGS WHERE VESSEL DETAINED	24	1	41	34	116	5	7	7	14	3

FISCAL YEAR 1991 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	1877	2242	1742	2347	4908	973	1358	1098	592	450
BOARDINGS WHERE VIOLATIONS DETECTED	409	215	471	698	1192	176	434	242	113	74
BOARDINGS WITH CONTROL ACTION	335	28	225	204	813	130	35	52	59	47
BOARDINGS WHERE VESSEL DETAINED	25	0	32	34	365	3	4	6	2	3

FISCAL YEAR 1992 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	2830	2455	2249	3026	7457	890	2321	1729	882	555
BOARDINGS WHERE VIOLATIONS DETECTED	257	173	422	644	848	196	462	159	142	84
BOARDINGS WITH CONTROL ACTION[1]	183	148	223	288	471	60	60	29	45	20
BOARDINGS WHERE VESSEL DETAINED[1]	6	0	54	147	50	1	1	0	20	3

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[1] Data from a field survey (data call) for the period from 1 March 1992 to 28 February 1993.

(013) SENATOR LAUTENBERG: What are the results of the review of Marine Safety enforcement policies initiated last year to identify necessary changes and further enhance program effectiveness?

ADMIRAL KIME: The review of our enforcement policies identified two areas where improvement was needed to enhance program effectiveness. These were the amount of civil penalties imposed for violations and our efforts to ensure that payment could be collected for any penalties assessed.

New policy guidance, on civil penalty procedures and administration, was issued in October of 1992. The guidance increased the minimum recommended civil penalties for all program areas, and stressed that any penalty assessed must exceed the cost benefit of noncompliance. As a result of these actions, there has been an increase in the amount of the recommended civil penalties for marine safety violations.

The second action was initiated in September 1992. Here we reemphasized the policy requiring a Letter of Undertaking (LOU) or a Surety Bond, from the responsible party, if civil penalty actions are initiated. This documents proves that a vessel with limited resources, or representation in the United States, can be held accountable for violating U.S. regulations. This will ensure the ability to collect assessed civil penalties.

(014) SENATOR LAUTENBERG: Has the comprehensive review of the Marine Safety Manual, specifically including a review of standards and policies for the standard vessel boarding program, the facility inspection program, and unit MSIS reporting instructions been completed? If so, what are the results of this review and what specific actions resulted from this review? If not, when will the study be complete?

ADMIRAL KIME: The review and revision of the Marine Safety Manual is an on-going project at Headquarters. Listed below is the status of the noted chapters:

1. Standard Vessel Boarding: Published in December '92. The new program provided more clearly defined boarding procedures, and promoted the goal of stronger port state control actions through the boarding program.
2. Facility Inspection Program: Currently under development. The expected publication date is September '93.
3. MSIS Reporting Instructions: Published in October '92. The new chapter provides detailed instructions for entering information into MSIS.

In addition to these chapters, the CG has also recently issued new chapters providing guidance on Vessel Boardings for MARPOL 73/78 compliance, and Personnel Management policy and procedures. Several more chapters dealing with mission performance standards, training and qualification procedures, port physical security, special interest vessels, and container inspections are also under development and should be completed by October '93.

(015) SENATOR LAUTENBERG: What are the results of the study contracted with an independent consulting firm to oversee and coordinate a review of the marine safety program's critical processes (deficiency violations process; vessel targeting and selection for boarding; marine licensing; marine inspection training and casualty data analysis and implementation)? What actions have resulted from this study? Please provide a copy of this study to the committee. How will G-M independently determine that the recommendations to the field growing out of this study will actually be implemented by field units?

ADMIRAL KIME: The results of the critical process reviews were very insightful, a full report outlining the methodology, scope and study results is attached as requested. The following action has resulted thus far based on the study's results:

To improve our vessel targeting and selection for boarding process we:

a. Revised the standard vessel boarding instruction and incorporated the update into the Marine Safety Manual (MSM).
b. Began a field training visitation program to review Marine Safety Information System (MSIS) data entry for vessel boardings.
c. Began standardizing our policy guidance on vessel boardings to the field through the MSM.
d. Developed a Pollution Prevention Compliance Checkoff list and policy guide to help our personnel during their boardings. It will be issued to the field during August 1993.
e. Contracted with Battelle Pacific Northwest Lab to help us develop measures of effectiveness for our vessel boarding program.

To improve our deficiency violations process we:

a. Updated COMDTINST 16200.3A "Civil Penalty Procedures and Administration" in October 1992, which reflected higher penalty recommendations in accordance with statutory guidelines provided by OPA 90.
b. Directed that all Hearing Officers use MSIS for all civil penalty cases to better track violations.
c. Began training units in MARPOL violation case preparation and supporting MSIS data entry.

To improve our casualty data analysis and implementation process we:

a. Developed "Program Activity Matrices" to begin the process of critically analyzing our data.
b. Completed a feedback loop through MINMOD so that all marine safety programs are notified when they can implement recommendations that evolve from casualty investigations.
c. Have started training a cadre of analysts within the Office of Marine Safety, Security and Environmental Protection on the various marine safety data bases and their capabilities.

To improve our marine inspection training process we:

a. Held a Marine Inspection Training Study Panel to review and comment on the marine inspection training recommendations. The panel was made up of the commanding officers of MSO's in our training ports and the Chief of the Marine Safety Branch at USCG Reserve Training Center Yorktown.
b. Will meet with each port's MSO training officer in August to develop a standard instruction for training and to discuss common issues.
c. Will ensure, to the degree service needs allow, that all training port graduates are subsequently assigned to a billet where they will use their acquired training.
d. Will increase tour lengths from three to four years for commissioned officers in duty billets at all marine safety units, to reduce the turnover rate.
e. Began looking at our needs, in view of our Maritime Regulatory Reform efforts, to determine our necessary throughput.
f. Will look at alternatives and/or additional training ports based on our throughput needs based on Maritime Regulatory Reform and the impact of creating a Marine Inspection Office in Europe.

To improve our marine licensing process we:

a. Reviewed the examination structures for Able Seamen (AB) and Qualified Member of the Engineering Department (QMED)

b. Addressed the following issues at the Senior Inspector Personnel conference in September 1992: applicants' possession of English skills, the use of the quarter scale model for lifeboat exams or verifying a sample of lifeboat competency letters provided by a ship's Master, and the need for demonstration of knot tying abilities. These topics will be re-addressed at the next SIP conference in September to determine if the solutions developed at the last conference were adequate.
c. Started a complete revision of the Marine Personnel volume of the Marine Safety Manual in November 1992. The revised volume will be published this Fall.
d. Are developing a one week resident training course at the Coast Guard's training center in Yorktown, VA for all Regional Examination Center (REC) evaluators. The first class is scheduled and funded for May 1994.
e. We addressed the issue of the public's frustration with "busy" telephone lines at the REC's during the last SIP conference. We will determine if this remains a problem at the next SIP conference.

G-M will independently determine which field units are actually implementing the recommendations of this or any other study through periodic analysis of the various marine safety and other applicable USCG data bases. The Office of Marine Safety, Security and Environmental Protection is also developing measures of effectiveness and using quality oversight teams to independently monitor field units' performance.

[CLERK'S NOTE.--Due to its size, the document entitled, ''United States Coast Guard Marine Safety, Security and Environmental Protection Program Assessment,'' does not appear in the hearing but is available for review in the subcommittee files.]

(016) SENATOR LAUTENBERG: In consideration of the critical process review and
the MSM rewrite project, have Mission Performance Standards for the marine safety mission been re-evaluated and reprioritized?

ADMIRAL KIME: We are reviewing recommendations on the critical processes. In conjunction with this review, we have initiated two separate studies to evaluate the validity of our current mission performance standards. The projects are in the preliminary stages, and we expect the initial results within a year.

(017)SENATOR LAUTENBERG: How has the new quarterly extract data from MSIS been used and analyzed by Coast Guard program managers to make and implement improvements in civil penalty enforcement? What improvements have been implemented to date?

ADMIRAL KIME: The G-M Activity Data FY92 has been distributed to field units, district offices and the G-M Quality Management Board for validation. Comments are due back on 1 August. Consequently, the data is not presently being used to develop any changes in management of the civil penalty process.

As we developed the Activity Data it became apparent that the process by which information was collected needed improvement. To address this, hearing officers have been directed to use the Marine Violation Module, which will provide better management and oversight of the process. A training team has been established to provide training on the Marine Violation Module at strategic locations nationwide to further improve the quality of data collection. Program managers have issued or revised policies on enforcement to improve compliance where the data indicated that current efforts were not achieving the desired results.

These changes were initially acted on in Oct 92. Since then the average penalty recommended by program managers has increased by 61 percent. In addition, new guidance has been issued on the use of Letters of Undertaking and Surety Bonds to address problems with the collection of penalties from foreign vessels. Data fields are being added to the Marine Safety Information System (MSIS) to track compliance with this guidance.

G-M has contracted with Sandia Labs to help establish Measures of Effectiveness based on workshops each of the divisions conducted using the PDQ Planning and Measurement methodology established by the Management Analysis Company. These MOEs will provide additional opportunities to improve civil penalty enforcement and data collection and analysis.

MV REDESIGN

(018) SENATOR LAUTENBERG: Admiral Kime, in your verbal remarks, you stated that the benefit of the new MV Redesign data that you have provided to the committee, will be its ability to assist you in efforts to, "...manage the program better, especially looking toward specific problem areas." To date, what are the problem areas that you find most troubling from your initial review of the MV Redesign?

ADMIRAL KIME: An initial review of MV Redesign data identified two areas we are currently examining; (1) The need for even greater consistency in enforcement actions taken, and (2) possible case work load imbalances among hearing officers.

(019) SENATOR LAUTENBERG: What specific remedies have you planned for these specific identified problems?

ADMIRAL KIME: G-MIM backloaded more than 3,500 hearing officer violation cases in the Marine Safety Information Sytem (MSIS). Today, all Hearing Officer cases are entered into MV Redesign and the data capture is complete. A Quality Action Team (QAT) is being chartered to address the cross program issue and refine civil penalty process policy. The QAT will also recommend reforms to improve the civil penalty enforcement process.

A training team is scheduled to conduct training at strategic locations covering the needs of the staff nationwide. The regular MSIS training at RTC Yorktown has been modified to more extensively cover the civil penalty process. In addition, specialized training is conducted on an individual basis as requested to improve the quality of the captured data.

We have promulgated a number of policy directives to the field providing guidance in the use of civil penalties and other enforcement tools. We have also provided guidance requiring increased activity in various program areas.

(020) SENATOR LAUTENBERG: What measures will you use to determine that the field has actually responded to your efforts to fix these problems?

ADMIRAL KIME: We are reviewing the recommendations on the critical processes. In conjunction with this review, we initiated two separate studies to validate our current mission performance standards. At this time the projects are in the preliminary stages.

(021) SENATOR LAUTENBERG: How do you intend to hold your people in the field accountable for implementing the solutions to these problems that you have identified?

ADMIRAL KIME: District Commanders are charged with ensuring that policy is carried out in their areas of responsibility. Their success in carrying out their duties will be monitored and course corrections will be provided as necessary.

MARINE SAFETY ENFORCEMENT

(022) SENATOR LAUTENBERG: What have been the specific results and recommendations from each of the studies tasked to "M" Divisions by COMDT (G-M) message P 2118125Z APR 92 in the wake of the M/V Santa Clara I casualty? How and when was each recommendation implemented? How will G-M independently confirm that all recommendations to the field have been implemented?

ADMIRAL KIME: The referenced message required Headquarters program managers to evaluate four specific areas within the marine safety program. Listed below are the required studies, and the status of each:

1. Investigate/analyze the CG violation process including required Officer/Enlisted training: New policy guidance on civil penalty procedures and administration was issued in October 1992. The new guidance increased the minimum recommended civil penalties for all program areas, and stressed that any penalty assessed must exceed the cost benefit of noncompliance. Additionally, we have begun to initiate a project to examine violation processing across all CG operating programs. Curriculum outlines for marine safety courses are being reviewed as they are received from the training source to ensure adequate training on violation case processing is included.

2. Investigate/Analyze the foreign vessel boarding program: After a review of the program, the Coast Guard revised and reissued its Standard Vessel Boarding program in December 1992. The new program provided more clearly defined boarding procedures, and promoted the goal of stronger port state control actions through the boarding program. We have also issued several messages and other directives reinforcing our policies on foreign vessel boardings, and the procedures to follow whenever violations are discovered.

3. Work with US Department Of Transportation's Office of the Associate Administrator for Hazardous Materials Safety (AAHMS) to study the feasibility of a container tracking system: This project pends the Secretary of Transportations (SECDOT) review and comment on the National Academy of Sciences (NAS) report on Hazardous Materials Shipment Information for Emergency Response. The NAS report was issued in April 1993 and SECDOT's comments are due to Congress by October 1993.

4. Assess adequacy/recommend changes to international shipboard container stowage requirements: The Coast Guard continues to lead the efforts at the International Maritime Organization (IMO) for improving the existing IMO Code of Safe Practices for Cargo Stowage and Securing (CSPCSS) and, where appropriate, making the code mandatory under the Safety of Life at Sea (SOLAS) Convention for ships carrying hazardous materials.

G-M will confirm that the field units are complying with the new policies by continuing to analyze quarterly Marine Safety Information System (MSIS) data and civil penalty data, and regular review of the Coast Guard's training programs.

MARPOL ENFORCEMENT

(023) SENATOR LAUTENBERG: Please provide an update of each initiative undertaken to improve MARPOL enforcement including those outlined in COMDT (G-MEP) msg 271653 Z Jan 92.

ADMIRAL KIME: The Coast Guard has developed a document called the MARPOL TRACKER which provides up to date details on the many initiatives underway to improve the MARPOL enforcement program. The MARPOL TRACKER, attached below, includes the status of initiatives outlined in COMDT (G-MEP) msg 271653 Z Jan 92 as well as additional projects initiated by the Coast Guard to strengthen the program.

COAST GUARD MARPOL TRACKER

No. III June 23, 1993

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ENFORCEMENT OPERATIONS

- Conducting operational enforcement efforts which combine the resources of Coast Guard cutters and aircraft with Marine Safety Offices.

- New goals: Expand MARPOL compliance efforts in Coast Guard's fisheries patrols program.

ENFORCEMENT POLICY IN THE EEZ

- Effective July 1992, the Coast Guard began taking enforcement action under U.S. law, including referral to the Department of Justice, for all suspected MARPOL V violations that have occurred in the U.S. Exclusive Economic Zone. Prior to July, policy was to forward cases involving vessels of signatory nations to the flag State administration for investigation and enforcement. Lack of information from flag States about whether action was being taken led to policy shift.

- The Coast Guard has generated 22 cases for U.S. enforcement action under the new policy since July 1992. As of March 15, 10 cases had reached the hearing officer, five of which resulted in penalties totalling $45,000.

ENFORCEMENT RESULTS

- Number of discharge violation cases under MARPOL V have been steadily increasing since 1990.

- Caseload data: - 1990 = 92
  1991 = 121
  1992 = 179

- Number of civil penalties and average penalty assessed for MARPOL V violations has increased significantly from 1991 to 1992.

  - In 1991, 12 civil penalties were assessed totalling $39,400. The average penalty was $3,283.

  - In 1992, number of civil penalties quadrupled to 47, with fines totalling $299,050. The average penalty doubled to $6,363.

- Substantial criminal penalties were levied for the first time in 1993.

  - The REGAL PRINCESS case in Miami resulted in a maximum criminal penalty of $500,000.

  - Case against the fish processing vessel MICHELLE IRENE in Seattle resulted in a $150,000 fine.

DISTRIBUTION OF MARPOL V VIOLATIONS

- The distribution of MARPOL V violation cases across all Coast Guard districts has improved since 1991. In 1991, the vast majority of cases were generated in four districts, the 1st (Northeast), 7th

(Southeast), 8th (Gulf of Mexico) and 17th (Alaska). That distribution has become more balanced spreading across all 10 Coast Guard districts during 1992, with significant growth in the 5th (mid-atlantic), 11th (Southwest) and 14th (Hawaii and Pacific).

COORDINATION WITH APHIS

- Conducted preliminary meeting with the Department of Agriculture, Animal and Plant Health Inspection Service (APHIS) in February. Agreed to the following:

1) Draft a Memorandum of Understanding documenting the Coast Guard/APHIS coordination efforts, with limited specificity.

2) Develop a proposed addendum to the APHIS Plant Protection and Quarantine boarding form of additional MARPOL V questions to increase its effectiveness as an enforcement tool.

3) Draft a one-page handout on MARPOL V enforcement guidelines for APHIS inspectors.

4) Include APHIS personnel in development of the MARPOL V training video.

- Coast Guard is providing APHIS with a quarterly report of the status of MARPOL V violation cases initiated by APHIS and general feedback on the Coast Guard's MARPOL V enforcement program.

- Closely monitoring CG - APHIS field unit coordination.

FLAG STATE RESPONSE TO MARPOL VIOLATIONS

- Coast Guard conveyed U.S. dissatisfaction with flag State enforcement in 33rd Marine Environment Protection Committee meeting in London in October 1992.

- Japanese have expressed new interest in the 12 MARPOL violation cases we have forwarded to the government through the Department of State (DOS) since 1989. No response yet.

- Since October 1992, Liberia has assessed penalties in six MARPOL V cases forwarded by the U.S., with ten other cases under investigation. Overall response rate from flag States has improved since MEPC 33.

- As of April 15, 1993, the Coast Guard had forwarded 235 Annex V violation cases for flag State enforcement. In the 87 responses from flag States, few reported taking penalty action against the vessel. Most responses acknowledged receipt of case only. Many others reported insufficient evidence and dismissed case.

- The Coast Guard is currently investigating a report from Japan on a U.S. tanker that allegedly discharged oil in Japanese waters.

SHIPBOARD REFUSE RECORDKEEPING

- Coast Guard pursuing second attempt to issue regulations requiring certain U.S. vessels (manned, oceangoing, engaged in commerce) to maintain records of refuse discharge, a requirement established under the Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA).

- First attempt in 1989 did not clear Office of Management and Budget.

- Revised NPRM approved by OMB on May 13, 1993 and published in the Federal Register on May 20, 1993. Public comment period expires on July 6, 1993.

- New approach differs from original package that required purchase of a "Refuse Record Book" that had to be returned by vessel to Coast Guard Headquarters for periodic review. No longer prescribes in what document the records be kept.

- Application has been expanded to vessels 40 feet or more in length (from 79 feet or more in length) to allow us to monitor disposal practices of many small commercial fishing vessels.

- Expect final rule to be published by end of 1993.

- Coast Guard is proposing that an international requirement for refuse recordkeeping be adopted by the International Maritime Organization (IMO). An action paper, including a proposed amendment to MARPOL 73/78, has been submitted for presentation in July 1993 at the IMO's 34th Marine Environment Protection Committee meeting in London.

LEGISLATIVE AMENDMENTS

- Coast Guard anticipates proposed amendments to strengthen the MPPRCA during the current legislative session.

CITIZEN REPORTS

- Field units are instructed that citizen reports of MARPOL V violations are critical to our enforcement program. Captain of the Port (COTP) and Marine Safety Office personnel are to react to reports in a timely manner and collect all information that can contribute to an Annex V violation case.

- Reports received at the headquarters level receive immediate response and are forwarded to the local unit for investigation.

MARPOL V HOT LINE

- A toll free number exists to notify the National Response Center (NRC) of incidents of oil or chemical spills.

- NRC is already taking MARPOL violation reports, although very few. Expect significant increase in volume of calls as result of advertising the 800-424-8802 number. Increased volume of calls will adversely effect the efficiency of NRC.

- A needs assessment determined that it will be necessary to add telephone lines and personnel, and modify the NRC's incident reporting information system data base to achieve effective public reporting and data capture of marine debris incidents.

- Research has been conducted about the cost and feasibility of expanding the reception capability of the existing NRC toll-free hotline.

- Dedicated MARPOL V terminal and watchstanders will be necessary to provide the public with easy and effective mechanism to report discharges. Dedicated toll free MARPOL hotline would ensure that calls from public are processed effectively.

- Project would require establishment of one or two telephone lines, three Full Time Equivalent (FTE) or contracted operators to provide one watchstander 24 hours a day/365 days a year.

- Costs range from $105,000 using Coast Guard personnel to $249,000 using contractor personnel. Modifications to the NRC's Incident Reporting Information System (IRIS) to capture the required data would range from $100,000 to $300,000 for a one time development cost. Break out of the costs listed below.

ITEM		UNITS	COST / 000
Telephone lines		400.00 month/line	8.6
Operators	(option 1)	3 FTE @32K/yr	96
	(option 2)	3 contractors @ 80K/yr	240
IRIS modifications		One time development	100-300

- Trained NRC operators on basics of MARPOL Annex V in January.

MARPOL COORDINATING COMMITTEE

- Hosted the second MARPOL Coordinating Committee meeting May 19, 1993 including representatives from Department of Agriculture, Center for Marine Conservation, Texas General Land Office and other groups to share information about MARPOL Annex V activities and better coordinate efforts.

MARPOL WHEEL

- User-friendly device designed to educate mariners on marine environmental compliance, including MARPOL restrictions.

- Hand-held wheel outlining discharge restrictions for merchant mariners. Produced 25,000 copies in English, Spanish and Vietnamese to be distributed by Captain of the Port offices and operational units.

- Planning to develop wheels into Italian, Portuguese, Japanese, Korean and Russian in 1994.

Current Distribution

Districts	English	Spanish	Vietnamese
1st (northeast)	2500	----	-----
2nd (mid-west)	----	----	-----
5th (mid-atlantic)	2500	----	-----
7th (southeast)	3000	325	325
8th (Gulf of Mexico)	3000	975	1100
9th (Great Lakes)	750	----	-----
11th (southwest)	2450	650	325
13th (northwest)	2450	----	-----
14th (Hawaii & Pacific)	1400	----	200
17th (Alaska)	1400	----	-----
Other Distribution			
USCG Tactical Law Enforcement Training Team	212	1	1
MSO Baltimore	----	50	-----
MSD Massena	----	25	-----
Marine Safety School	400	----	-----

PUBLIC OUTREACH - PILOT PROGRAMS

- Actively selling our outreach program ideas to the environmental community through such opportunities as the Gulf of Mexico Symposium, MEPC 33, MTS 92, the 1993 Oil Spill Conference and Interviews in trade journals such as Lloyds List.

- Need to focus on recreational and commercial fishing fleets, which generate 83 percent of garbage pollution from vessels. Until now, the Coast Guard's MARPOL enforcement programs have been focused principally on the deep-draft commercial vessel and port communities.

- Two outreach pilot programs will be implemented, one to include the New England/New York/New Jersey Coastal areas, the other to include the Gulf of Mexico.

- Coast Guard Auxiliary will be used to bring a new multi-agency cooperative outreach program to the recreational and fishing vessel, and marina communities.

- Effort is being taken to enhance these communities' awareness of their impacts on the environment and actions they can take to affect positive change. Higher levels of compliance to MARPOL Annex I, II and V may result.

- Coast Guard environmental education and outreach programs will focus on oil pollution and marine debris.

- External programs will provide appropriate environmental education and outreach materials for recreational boaters, fishing vessel operators, and marina owners and operators.

- The Coast Guard will work with the Gulf of Mexico Program, the Center for Marine Conservation (CMC), the Sea Grant Program, the U.S. Fish and Wildlife Service, and the Texas General Land Office, to implement this program. The Coast Guard has transferred funds to begin the east coast pilot project implementation process. Efforts are currently underway with the Texas A & M Sea Grant Program to transfer Coast Guard funds to implement the Gulf Coast pilot outreach programs.

Pilot Programs.

We seek to establish a more forward looking strategy through the implementation of internal and external environmental education and outreach program focused on prevention.

- Internal Outreach:

  - Internal outreach programs will target Marine Safety personnel, group and station personnel and Coast Guard Reserves augmenting these missions.

  - Educational materials will cover MARPOL implementation and provide members a perspective of environmental issues they should be sensitive to during the execution of their various duties.

  - This program will allow Coast Guard personnel to identify environmental issues particular to the port and coastal environment and empower them to act on perceived problems.

- External Outreach:

  -aimed at effecting recreational boaters, commercial fishing vessels and marinas.

-program will be implemented as part of Auxiliary Boating Safety Course, Courtesy Motorboat Examination, Marine Dealer Visits, Regatta Patrols, Voluntary Fishing Vessel Inspection Programs.

Marine Board.

- A National Research Council, Marine Board Committee on Shipborne Wastes was convened in May of 1992 to assess implementation of MARPOL Annex V.

- The Committee's charter calls for an examination of marine debris pollution caused by all ships' operations, and will examine all fleets, all ports and terminals, and all pertinent public and private institutions.

- The Coast Guard is a liaison to this Committee and provides information on Coast Guard enforcement activities and programs.

- As issues arise during the course of the Committee's investigation, the Coast Guard responds by further examining its enforcement activities (e.g. definition of navigable waters in Shoreline Protection Act requirements for vessels bringing garbage to shore from offshore rigs and platforms).

FEDERAL AGENCY MANDATES

- Mandates under MPPRCA

  * USCG - Standards for Deep Draft Seagoing Vessels
    - Reception Facilities
    - Biennial Compliance Reports

  * NOAA - Citizen Pollution Patrols
    - Reception Facilities
    - Public Outreach Program (with EPA)
      . 3 years (88-91)
      . Recreational and Fishermen

  * EPA - Study of Methods to Reduce Plastic Pollution (MAY 89)
    - Public Outreach Program (with NOAA)

CITIZEN POLLUTION PATROLS

- Joint responsibility of NOAA, Coast Guard, and EPA under section 2204 of MPPRCA.

- Coast Guard offering participation with NOAA, using Coast Guard resources, especially Auxiliary members. Concept is educating our people and citizens on what to look for and how to report possible violations.

- The Coast Guard serves on the Marine Debris Subcommittee of the Gulf of Mexico Program and facilitates development of new activities that utilize the cooperative efforts of a broad range of public and private organizations to solve marine debris problems.

- The program has implemented a boater's pledge program that seeks to motivate boaters and anglers to pledge compliance with MARPOL Annex V.

- The Center for Marine Conservation's Citizen Reporting Program, which empowers citizens to report observations of marine pollution, will be implemented in each pilot project.

- The Coast Guard is developing environmental education and outreach pilot programs to effect higher levels of compliance with marine environmental protection regulations.

- The pilot programs will seek to contact recreational boaters, fishing vessel and marina operators through Coast Guard Auxiliary Boating Safety Courses, Courtesy Motorboat Examinations, marina visits and voluntary fishing vessel safety exams.

- Meeting with MARPOL coordinators to evaluate each unit's program. Accompanying Coast Guard boarding teams on vessel and facility inspections to observe procedures in conducting MARPOL V compliance checks. Reviewing certificate of adequacy program for port's reception facilities. Conveying to the command the importance of a strong MARPOL enforcement program.

- Training was conducted with personnel from 16 field units and district offices in 1st, 7th, 11th and 13th districts during 1992.

- Began Fifth District training with MSO Baltimore in January 1993. Visited MSO Philadelphia in June 1993.

- Pilot programs will incorporate relevant citizen reporting models.

WIDER CARIBBEAN

- A strategy for bringing the Special Area for the Wider Caribbean into effect is a political issue as well as a technical and economic one. The issues are regional in nature, and the Coast Guard will work to facilitate multilateral cooperation/coordination to resolve the implementation issues.

- The Coast Guard can and will lend its technical and financial support to facilitate resolution. We must do this carefully or we will be blamed for dictating terms to our Wider Caribbean neighbors. The Caribbean States are extremely sensitive to being manipulated by the U.S. Therefore, the strategic framework for bringing the Special Area into effect should be agreed upon by all members of the region.

- The first opportunity for the Coast Guard to enter the process occurred during the World Bank sponsored, Organization of Eastern Caribbean States (OECS) MARPOL Annex V Enforcement Workshop held in Corpus Christi, Texas from April 28-30, 1993. This was held under the auspices of the World Bank Waste Management Project.

- The Coast Guard will support another World Bank project called the Wider Caribbean Initiative on Ship Generated Waste. IMO is the executing agency. This issue will be discussed at a meeting from October 13-15, 1993 at IMO Headquarters in London. The IMO Regional Consultant from the Wider Caribbean will be the principal coordinator for this project. The Coast Guard will support the regional coordinator's efforts and provide technical assistance to the implementing agency (the World Bank) as requested.

- The Coast Guard is also acting unilaterally through the Intergovernmental Oceanographic Commission by providing $30,000 for a multi-year program to encourage non-party nations in the Wider Caribbean to adopt MARPOL Annex V, and bring the Special Area designation into effect to include the Gulf of Mexico.

TRAINING TEAMS

- We have incorporated MARPOL V education into the agenda of our Port Safety Training Teams. Team sent to Panama, which has the worst MARPOL V violation record, to provide port safety and environmental protection training emphasizing MARPOL compliance.

MARPOL COORDINATORS

- We have dedicated MARPOL coordinators at all Coast Guard Captain of the Port and Marine Safety Offices to carry out MARPOL related activities.

- We are in regular communication with these individuals over the telephone and via the e-mail network.

MARPOL QUALITY OVERSIGHT TEAM

- Headquarters personnel traveling to Captain of the Port and Marine Safety offices to provide policy guidance on MARPOL enforcement. Program began in May 1992.

REDUCTION IN THE U.S. FLAG FLEET

(024) SENATOR LAUTENBERG: The administration's recent announcement not to propose a maritime reform package this year has reportedly had a direct impact on future plans of owners of US. flag vessels who claim economical survival will require them to reflag their vessels overseas. By some estimates, the US flag fleet which included approximately 141 vessels in 1990 may be reduced to 30 coastal tankers by the year 2005. Presuming an 80% reduction of the US flag fleet as anticipated, what corresponding reduction in marine inspectors will be realized by 2005 from a reduced workload due to decreased inspections relating to USCG certification?

ADMIRAL KIME: It is difficult to give a specific response to a hypothetical question regarding future events. There are approximately 12,000 U.S. commercial vessels currently subject to Coast Guard inspection. Of these, approximately 348 are deep-draft oceangoing merchant vessels. The attached table provides a breakdown of the entire U.S. inspected fleet.

Several factors influence the amount of time it takes to conduct a given inspection. Generally, the larger the vessel, the greater the time involved. Other factors, such as the vessel category, the overall condition of the vessel, the experience level of the inspector, and the degree of preparation on the part of the vessel owner/operator also play a part. In the case of your hypothetical situation of a reduction in fleet size from 141 vessels in 1990 to a fleet size of 30 vessels in 2005, your question could result in the transfer of 111 out of those 12000 vessels. This reduction is less than one percent of the total U.S. inspected fleet. Based on a transfer of 111 vessels to foreign flag operation, we would expect a 6 FTE (net) workload reduction. This reduction is based on a total U.S. fleet workload reduction of 10 FTE (calculated on inspecting deep draft, oceangoing vessels), and a 4 FTE workload increase involving our foreign vessel boarding program. The U.S. fleet workload reduction of 10 FTE would also reduce user fee receipts by an estimated $800,000 annually.

Coast Guard marine inspectors (commissioned officers, warrant officers, or civilians) conduct all U.S. flag merchant vessel inspections. Marine inspectors also conduct all foreign chemical and gas tankship examinations, as well as all foreign passenger vessel examinations. Marine inspectors are sometimes assisted by qualified petty officers serving as assistant marine inspectors. Foreign tank vessel examinations, on the other hand, are typically conducted by both marine inspectors and enlisted port operations personnel, with the mix being approximately 50/50. Finally, foreign freight ship examinations are conducted almost entirely by enlisted port operations personnel.

VESSEL CATEGORY	FLEET SIZE
Freight Vessels	1,065
Industrial Vessels	113
Mobile Offshore Drilling Units (MODUs)	165
Offshore Supply Vessels	755
Oil Recovery Vessels	19
Passenger Ships (H)	168
Small Passenger Vessels (T)	5,532
Public Vessels	53
Research Vessels	20

School Ships	22
Tank Barges	4,113
Tank Ships	261
Unclassified Vessels	53
TOTAL INSPECTED VESSELS	12,339

(025) SENATOR LAUTENBERG: Do you anticipate that any currently US flagged ships will reflag in 1994? What number of marine inspectors do you project you will need in 1994? How does this number compare to the number of marine inspectors in 1992 and 1993?

ADMIRAL KIME: Several articles in trade publications and newspapers indicate that both SeaLand Services Inc, and American President Lines (APL) are looking to reflag a majority of their fleet. SeaLand has already filed an application with the Maritime Administration to reflag 13 of their ships. APL plans to file in the near future. APL intends to reflag seven of the 15 ships it now has in the Pacific trade. In addition, six new APL ships scheduled for delivery in 1995, which were to have been US flag, will apparently fly the Marshall Islands flag. To date though, we have not received notification to delete any SeaLand or APL vessels from US registry. This will happen if MARAD approves the transfer to a non-US flag. If US flag vessel owners did file for deletion from US registry in 1994, we would expect such notifications to come from owners not currently receiving Operating Differential Subsidy (ODS) payments or who did not build their vessels using Construction Differential Subsidies (CDS). Vessels currently participating in the ODS program could reflag once either their CDS/ODS obligations are met or the ODS program expires.

The projected FY 1994 staffing requirement for marine inspectors is 449. Currently there are 449 marine inspectors assigned to our marine safety offices. In 1992 we had 422 marine inspectors assigned.

(026) SENATOR LAUTENBERG: One of the claims that the U.S. flag fleet cites as being responsible for their increased cost of operation under American flag is the excessive cost of complying with U.S. Coast Guard safety regulations. If the Coast Guard is ensuring comparable safety standards on foreign flag ships through port state control, why does the U.S. flag fleet perceive their safety related costs to be far in excess of those of the foreign fleet? If a comparable level of safety is not being enforced on foreign flag ships through port state control, why isn't it?

ADMIRAL KIME: There are several reasons why operating costs on U.S. vessels are greater than those on foreign vessels. The reasons are:

1. U.S. regulatory standards in many cases exceed class and international requirements. This translates to additional equipment costs.
2. The International Convention for the Safety of Life at Sea (SOLAS) leaves many design standards for equipment to the "satisfaction of the Administration." The equipment on U.S. vessels has a strict approval process and the cost of approval is added to the cost of equipment. By comparison, some foreign countries have very lax or no standards for equipment approvals, which results in lower costs.
3. U.S. conducts more extensive and frequent inspections which cost vessel operators and owners in time and revenue.
4. In some instances the same inspections are conducted by both the Coast Guard and the class societies resulting in lost time and revenues.

We are aware that complete parity does not exist with respect to

U.S. and international standards. Therefore, we are working with industry and have recently completed a strategic plan to provide economic parity for U.S. vessels. This plan will seek to eliminate the higher costs as listed above.

Our port state control efforts do not ensure a comparable level of safety for foreign vessels. Port state control ensures that foreign vessels meet a minimum acceptable level of safety and that they are not a hazard to the safety of U.S. waters. It is imperative that we continue to work at IMO to raise the safety level of foreign vessels to be more commensurate with ours.

(027) SENATOR LAUTENBERG: Has the Coast Guard made any recommendations regarding initiatives to ensure that U.S. flag vessels are not economically penalized for their greater committment to safety? If so, what were those recommendations and to whom were they addressed?

ADMIRAL KIME: In July 1992, ten maritime reform issues were presented to then Secretary Card; five of these concerned vessel manning reform, four addressed ship design and equipment standards, and one concerned enforcement of these standards. Since that time, we have conducted a comparison between U.S. regulations and a combination of international convention and classification society rules. We have also organized a team to develop a strategic plan for implementing certain maritime reform initiatives; specifically, the harmonization of domestic and international safety standards, the expanded role of classification societies in determining compliance with those safety standards, and balancing our port state and flag state enforcement efforts. The Coast Guard believes that safety standards must be uniformly enforced on both U.S. and foreign flag vessels to ensure safety and create a viable economic environment for the U.S. merchant fleet.

(028) SENATOR LAUTENBERG: The U.S. flag fleet maintains that many of the Coast Guard's safety rules are outdated, cost prohibitive and do not contribute to safer ships. Is this true? Please explain.

ADMIRAL KIME: Wherever possible, our regulations adopt international ship design and construction standards. This is an effort to establish parity between U.S. and foreign flag vessels. Unfortunately, the international codes contain many provisions that are left to the "satisfaction of the Administration." This allows for variances between member states as they augment the international standards with more specific standards and design criteria to address these provisions. Recognizing this, the Coast Guard is participating in several technical Subcommittees of the Maritime Safety Committee of the International Maritime Organization (IMO), to broaden the scope and increase the specificity of the various IMO codes and conventions.

Coast Guard efforts to level the international playing field are not new. Recently, this effort was elevated by bringing together a special project team to develop a strategic plan for maritime regulatory reform. This plan, in part, specifically addresses the harmonization of domestic and international safety standards.

MARINE SAFETY BOARDING LEVELS

(029)SENATOR LAUTENBERG: For both domestic and foreign flag vessels, please update the tables found on pages 114 and 115 of last years hearing record. Please provide a summary of boardings indicating the number of boardings for domestic and foreign flag vessels, the number of violations, the number of boardings where control action was taken, and the number that resulted in the vessels being detained. Please also indicate the number of boardings that you would have liked to conducted however were not able to due to resource limitations.

ADMIRAL KIME: The number of vessel boardings, violations detected, control actions taken, and vessel detentions by the Coast Guard for FY 1990 through FY 1992 is shown in the tables below.

A revised Port Safety Module on the Marine Safety Information System (MSIS) was used to collect the data for FY 1992. The reduction in control actions and detentions for FY92 has not been validated. Inconsistencies in the use of this module revision have resulted in data that was initially inconclusive. To better educate personnel using this system we have expanded guidance and training to the field units and training at Reserve Training Center Yorktown.

We are unable to provide you with the number of boardings that we could not conduct due to resource limitations. The data to answer this question is not currently available. We are looking into ways to extract this data from MSIS.

NATIONAL SUMMARY

NUMBER	FY 1990	FY 1991	FY 1992
VESSEL BOARDINGS	18768	20090	24394
BOARDINGS WHERE VIOLATIONS DETECTED	4910	4024	3387
BOARDINGS WITH CONTROL ACTION	2203	1928	1542[1]
BOARDINGS WHERE VESSEL DETAINED	252	474	282[1]

[1] Data from a field survey (data call) for the period from 1 March 1992 to 28 February 1993.

FISCAL YEAR 1990 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	1547	2438	2045	2011	5694	1028	1631	1136	657	581
BOARDINGS WHERE VIOLATIONS DETECTED	476	165	579	477	1899	148	547	266	197	156
BOARDINGS WITH CONTROL ACTION	470	59	188	233	927	64	47	54	123	38
BOARDINGS WHERE VESSEL DETAINED	24	1	41	34	116	5	7	7	14	3

FISCAL YEAR 1991 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	1877	2242	1742	2347	4908	973	1358	1098	592	450
BOARDINGS WHERE VIOLATIONS DETECTED	409	215	471	698	1192	176	434	242	113	74
BOARDINGS WITH CONTROL ACTION	335	28	225	204	813	130	35	52	59	47
BOARDINGS WHERE VESSEL DETAINED	25	0	32	34	365	3	4	6	2	3

FISCAL YEAR 1992 BREAKDOWN BY DISTRICT

	DIST 01	DIST 02	DIST 05	DIST 07	DIST 08	DIST 09	DIST 11	DIST 13	DIST 14	DIST 17
VESSEL BOARDINGS	2830	2455	2249	3026	7457	890	2321	1729	882	555
BOARDINGS WHERE VIOLATIONS DETECTED	257	173	422	644	848	196	462	159	142	84
BOARDINGS WITH CONTROL ACTION[1]	40	16	71	175	271	10	9	19	23	19
BOARDINGS WHERE VESSEL DETAINED[1]	6	0	54	147	50	1	1	0	20	3

[1] Data from a field survey (data call) for the period from 1 March 1992 to 28 February 1993.

COAST GUARD INTERVENTION ACTION

(030)SENATOR LAUTENBERG: If the Coast Guard is not satisfied with the standards that a ship meets when it conducts a port state-controlled boarding, you can intervene under various treaties and "not accept their certificate." Please provide the relevant data to indicate the frequency of U.S. interventions as compared to other nations for each treaty for 1991, 1992 and 1993 to date.

ADMIRAL KIME: The Coast Guard issues detention orders (interventions) under both United States law and international treaty. However, the majority of such orders are issued under domestic law, primarily through Captain of the Port (COTP) orders.

Under international law, the Coast Guard primarily detains foreign-flag vessels under the 1974 Safety of Life at Sea Convention, as amended in 1978 (SOLAS 74/78). We can also detain vessels under the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 (MARPOL 73/78). However, vessels are generally detained under the implementing domestic legislation. The table below provides a breakdown of detention orders by authority for the requested time period:

Legal Authority	1991	1992	1993
U.S. Law	300	207	N/A*
SOLAS	16	18	15**
Total	316	225	26

Other countries have taken formal intervention action under the authority of SOLAS 74/78 and MARPOL 73/78. The number of SOLAS 74/78 interventions reported to the International Maritime Organization (IMO) by parties to the convention are summarized below. The number of interventions conducted by parties to MARPOL 73/78 are not available from the IMO for the time period you requested. Historically, few parties submit this data to the IMO, making it difficult to ascertain the true number of interventions conducted under MARPOL 73/78. For example, in 1990 only nine countries - United States, Germany, Australia, Bulgaria, China, Greece, Japan, Norway, United Kingdom - submitted reports to the IMO.

Year	1991	1992
SOLAS	186	195***

* 1993 calendar year data is not available.
** Covers the period through May 1993.
*** The total is based on reports received before November 24, 1992, the latest information available.

(031) SENATOR LAUTENBERG: Please provide supporting data, displayed to identify actions taken in each of the last five years, separated by treaty and Annex under which the U.S has intervened.

ADMIRAL KIME: The Coast Guard takes enforcement action under both U.S. law and international treaty. When action is taken against a ship under the authority of an international treaty it is referred to as an intervention. When action is taken against a ship under U.S. law, it is referred to as a detention. The table below provides a break down of enforcement action by type and year. These numbers reflect calander year data. Data was derived directly from complete Port State Control Reports.

LEGAL AUTHORITY	1988	1989	1990	1991	1992
U.S. Law					
Detentions	434	167	280	300	207
SOLAS Regulation I/19					

Interventions	6	6	5	16	18
Totals:	440	173	285	316	225

IMO

(032) SENATOR LAUTENBERG: The Secretary General of the International Maritime Organization (IMO) recently expressed concern over the slow rate of implementation of IMO initiatives and is accordingly considering ways of accelerating the process. Are you satisfied with the current rate of progress at IMO? What specific US initiatives have you proposed to IMO which you feel are sufficiently important to warrant unilateral port state control action if not adopted? For each initiative, please identify what additional port state control actions you intend to take if not adopted by IMO and the date you would expect to initiate such actions. How will G-M independently ascertain that the field has implemented the relevant port state control actions?

ADMIRAL KIME: No, the Coast Guard is not satisfied with the current rate of progress at IMO and is determined to work closely in support of the Secretary General's efforts to accelerate the process.

Our desire as a port state is to seek international solutions by carrying new initiatives to IMO in order to upgrade the standards of other nations and ensure international parity. We must emphasize a strong commitment to IMO and continue to work with other flag states. If the flag states lack the commitment to enforce the international conventions and codes, then there may be a resultant shift to unilateral action by the individual port states. This would be extremely detrimental to the international fleet.

There are no initiatives which were proposed by the United States and which are currently being considered by IMO that warrant unilateral action.

The U.S. has full port state control authority and will continue to exercise this authority on substandard vessels that enter U.S. ports. However, working with other flag states at IMO and emphasizing effective flag state control through vehicles like the Flag State Implementation subcommittee is more efficient than exercising port state control. G-M will ascertain that the field has implemented port state control actions through SOLAS Intervention reports, direct feedback from the field, and MSIS data.

(033) SENATOR LAUTENBERG: Please submit a prioritized list of all US IMO inititives also indicating your time frame for acceptable implementation (i.e. if the international action is not taken by this time then unilateral port state control action will be considered.)

ADMIRAL KIME: The table below lists United States initiatives and desired time frame for implementation.

Priority	Completion Date
1. Comprehensive review and update of the 1978 International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW)	1995
2. Placards, waste management plans and refuse recordkeeping for ships under Annex V of International Convention for the Prevention of Pollution from Ships (MARPOL)	1994
3. Review of the Code of Safe Practice for Cargo Stowage and Securing, and the consideration of the need for making this code mandatory.	1995
4. Risk analysis of on-deck stowage of marine pollutants and revision of	1995

	relevant International Maritime Dangerous Goods (IMDG) code stowage provisions.	
5.	Review of structural integrity standards of fiberglass reinforced plastic containers.	1995
6.	Consolidation and update of IMO port state control requirements	1995
7.	Development of international life-saving equipment approval standards	1996
8.	Implementation of 121.5 MHz beacon on Inmarsat and 406 MHz Satellite Emergency Position Radiobeacons. (EPIRBs)	1994

U.S. DATA ON SUBSTANDARD SHIPS

(034) SENATOR LAUTENBURG: This subcommittee appropriates millions of dollars every year to maintain the Marine Safety Information System (MSIS)-- your central computer file on ships, boardings, violations, and penalties. Some observers in the ship chartering community have stated that they could avoid chartering substandard ships if they had access to a comprehensive data base on a vessel's safety history. Your MSIS system may be the most comprehensive data base currently available, at least as far as ships that visit the United States. Do you customarily make MSIS data available to any interested party who requests the data? If not, why not? How many requests have been received in the last year?

ADMIRAL KIME: Yes, the Coast Guard does release the Marine Safety Information System (MSIS) data to the public. The requests are handled as Freedom of Information Act (FOIA) requests. The data is released either by screen prints of MSIS itself or tape copies of specific files within the MSIS data base. If a request was received asking for all vessels with violations, we would copy our data files pertaining to violations and vessels onto computer tapes. This is necessary due to the abundance of data on specific subjects. The only data that is not released to the public is that data which is protected by the Privacy Act. Over 700 FOIA requests for MSIS data were filled within the last year.

(035) SENATOR LAUTENBURG: Why doesn't the Coast Guard merely publish data on the conditions they find, so as to let the entire shipping community know who the good actors and bad actors are among ships that call at U.S. Ports.

ADMIRAL KIME: The Marine Safety Information System (MSIS) has been developed to provide Coast Guard field units with information about specific vessels. The MSIS has also served as an accounting tool for program managers. The system was not designed to be a grading system that distinguishes "bad actors" from "good actors". The publishing of data from a data base may not provide an accurate indicator of a company's operating practices. Thus, rating companies based on MSIS data alone, could lead to companies being misjudged. Any list, such as this, would be subjective and would have national and international implications with respect to both regulatory and liability matters. In addition a "good actor/bad actor" list would require a means for review and recourse in order to be equitable.

The Coast Guard's rating of vessels is based on a pass/fail criteria. A vessel is either in compliance or not in compliance with domestic and international laws regulations and/or treaties. A vessel in compliance is typically issued a certificate by the Coast Guard that allows the vessel to engage in a specific trade. Conversely, a vessel not in compliance is not issued a certificate and, therefore, is restricted from engaging in the desired trade. We consider this real time assessment of a vessel's condition to be the most impartial method for the Coast Guard to carry out its commercial vessel safety duties.

(036) SENATOR LAUTENBURG: This kind of information is currently made available in the aviation industry regarding the condition and enforcement history for airplanes. Why shouldn't such information also be made readily available for ships?

ADMIRAL KIME: This type of information is also made readily available to the shipping industry. Vessel owners/operators receive information regarding the condition of their vessels following the Coast Guard's inspection of the vessels. Other requests for information are handled as Freedom of Information Act (FOIA) requests. It is our understanding from discussions with the Federal Aviation Administration that our method of disseminating information is similar to their's. We consider disseminating information in this fashion the most time and cost efficient for the Coast Guard.

(037) SENATOR LAUTENBERG: Some in the shipping industry have said that, with only three phone calls, they could create an extensive list of substandard ships that would be worthy of the scrap yard (N/C Journal of Commerce 3/30/93). If it only requires three phone calls to develop this list, why hasn't the Coast Guard gone ahead and created this list?

ADMIRAL KIME: It would take much more effort than three phone calls to develop a reliable list of substandard ships. To develop such information, the Coast Guard would have to request information from each vessel's flag state, classification society, insurer, charterer, etc., to identify vessels which may be substandard.

The Coast Guard maintains a boarding history of Coast Guard examinations on both U.S. flag and foreign vessels that visit U.S. ports. Examination results are recorded in Marine Safety Information System (MSIS) for each vessel. This provides for a more reliable method of identifying whether or not a vessel is substandard.

A new Sub-Committee for Flag State Implementation (FSI) was established in December 1992, at the 61st session of the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO), and is developing a database that may help identify substandard vessels. The Coast Guard is fully participating on the FSI Sub-Committee to assist in the development and analysis of this data.

MSIS DATA

(038) SENATOR LAUTENBERG: Admiral, you state in your verbal remarks, that in regard to sharing Marine Safety Information System (MSIS) data with the public, "There is concern about proprietary information, restraint of trade." Please describe these concerns in greater detail.

ADMIRAL KIME: The Marine Safety Information System (MSIS) contains data on vessel owners, operators, agents and other individuals. The Privacy Act protects information from being released on individuals, on vessel schedules, and cargoes. The Freedom of Information Act permits exclusion of other proprietary information. MSIS also contains data on marine casualties and civil penalty violations that are still under investigation. This data is not released to the public until after the case has been closed. We do not release data to the public that falls within the purview of the Privacy Act, FOIA exclusions for proprietary information and records of information compiled for law enforcement purposes (5 U.S.C.552.b(7)).

(039) SENATOR LAUTENBERG: Have your actions in making Marine Safety Information System (MSIS) data available to the public ever been tested in court? If so, what were the results of such court tests?

ADMIRAL KIME: The Coast Guard MSIS data has never been contested in court.

(040) SENATOR LAUTENBERG: When you currently make MSIS data available to the public, do you provide them with the complete data base that is accessible on a daily basis to all Marine Safety Offices?

ADMIRAL KIME: All data is available for release to the public except as excluded by the Privacy Act or records of information compiled for law enforcement purposes (5 U.S.C. 552.B(7)). The data provided is a snapshot of the data base and is the same information available to Marine Safety Offices, but is typically one quarter old. Within the Coast Guard, quarterly extracts of the entire data base are made which contain all data with the exception of logs, ticklers, electronic mail and passwords. These extractions are used for program management, analysis, and response to public requests.

(041) SENATOR LAUTENBERG: You stated in your verbal remarks that, to the extent that the law prohibits you from making Marine Safety Information System (MSIS) data widely available to the public, you would perhaps support modifying the law. Please discuss in detail what legal changes, if any, may be necessary to allow you to make MSIS data more readily available to the public.

ADMIRAL KIME: All information from MSIS is being released to the public with the exception of data that falls within the purview of the Privacy Act and ongoing investigation cases which are covered under the Freedom of Information Act, 5 U.S.C. 552.b(7). Although some proprietary information on vessels and vessel owners and operators is exempted under the Freedom of Information Act, most data is released to the public on request. This includes information on safety related items. Consequently, changes to the law are unnecessary.

INTERNATIONAL INSPECTION RECORDS DATA BASE

(042) SENATOR LAUTENBERG: You stated in your verbal remarks that the IMO Subcommittee on Flag State Implementation (FSI) has begun the establishment of an international data base to house "the inspection records by all parties." Ideally, what parties do you expect to participate in providing inspection records to this international data base?

ADMIRAL KIME: I expect all member nations of IMO, who conduct casualty investigations and inspections of vessels subject to requirements of the international instruments administered by IMO, to provide records. The first data to be captured will be from investigations of marine casualties followed by data from vessel deficiencies discovered and eventually data from vessel inspections. The data base would be accessible by all Administrations, classification societies, insurance underwriters, and prospective charterers.

(043) SENATOR LAUTENBERG: You stated in your verbal remarks that the IMO Subcommittee on Flag State Implementation (FSI) has begun the establishment of an international data base to house "the inspection records by all parties." Will the Coast Guard MSIS inspection data be made available in full to this data base? If not, why not?

ADMIRAL KIME: Coast Guard MSIS inspection data will be made available for the international data base with the exception of those data elements which cannot be publicly released due to Privacy Act, FOIA exclusions for proprietary information and records of information compiled for law enforcement purposes.

(044) SENATOR LAUTENBERG: You stated in your verbal remarks that the IMO Subcommittee on Flag State Implementation (FSI) has begun the establishment of an international data base to house "the inspection records by all parties." Elsewhere in your verbal remarks, you

expressed concern regarding full disclosure of MSIS data. How does this concern merge with your interest in participating in this international data base?

ADMIRAL KIME: The only Coast Guard MSIS data which could not be provided for the international data base are those data elements which cannot be publicly released due to Privacy Act, FOIA exclusions for propietary information, and 5 U.S.C. 552.b(7), considerations. Removing those data elements prior to providing the data to IMO should not significantly hamper U.S. participation in the international data base.

(045) SENATOR LAUTENBERG: You stated in your verbal remarks that the United States is the lead agency in sharing inspection records and participating in the international data base. How is the U.S. a lead agency in this effort?

ADMIRAL KIME: The U.S. has been a vocal proponent of an international data base through the IMO Steering Group on Casualty Statistics and the Subcommittee on Flag State Implementation (FSI). In addition, the U.S is coordinating an intersessional correspondence group of the FSI Subcommittee to develop the format for an international data base.

SAFETY CERTIFICATION FROM DEFICIENT FLAG STATES

(046) SENATOR LAUTENBERG: Please identify which six flag states have the best and worst safety records based on either IMO data or any data you believe relevant. Please provide relevant data.

ADMIRAL KIME: The ranking of the flag states was developed from listings of interventions reported to the International Maritime Organization (IMO) for the previous 6 months. Only those flag states that have over one million gross registered tons were included in the ranking. Because several small flag states did not receive any deficiencies during the reporting period, there was no way to accurately list the six flag states with the best safety records.

The table below ranks the 11 flag states with the highest percentage of the world fleet tonnage, in millions of gross registered tons, with the number of interventions reported per million gross registered tons. A higher intervention per million number indicates that the Flag State had a proportionally higher number of deficiencies based on the registered tonnage. An intervention is action taken by the Port State which prevents the ship from sailing until the deficiencies are corrected, or the ship can otherwise proceed safely.

The combined tonnage of these 11 countries comprises over 65% of the total world tonnage. There are approximately 145 other countries that make up the remaining world fleet tonnage.

Flag	Interventions per Million tons	Total Tonnage (in millions)	Rank
Malta	1.2836	10.127	1
Cyprus	1.2263	20.386	2
Panama	.6622	49.830	3
Bahamas	.4986	20.054	4
Russia	.4421	15.833	5
China	.2868	13.946	6
Norway	.2214	22.583	7
Liberia	.1993	55.167	8
Greece	.1623	24.642	9
Japan	.0393	25.403	10
United States	0	18.228	11

(047) SENATOR LAUTENBERG: Why don't we require those vessels from some of the most deficient flag states to obtain alternative safety certification before they enter U.S waters?

ADMIRAL KIME: The vessel's flag state registration does not necessarily indicate the vessel's degree of compliance with International or U.S. safety standards. The primary responsibility for the condition of a vessel rests with the vessel's owner.

Imposing additional safety requirements based on the safety record of the flag state is not equitable, nor does it consider the material status of the vessel itself. Moreover, once deficiencies are identified, the Coast Guard has a permanent record of the vessel's deficiencies, even if the flag state is changed.

(048) SENATOR LAUTENBERG: What procedures are in place to notify COTP's and OCMI's of the worst classification societies and flag states? Do you believe such notification is necessary? If not, Why?

ADMIRAL KIME: There are no procedures in place to notify COTP's and OCMI's of the worst classification societies or flag states. The need to list deficient flag states is alleviated by using a performance based system which tracks individual vessels. Individual vessels are identified in the Marine Safety Information System (MSIS) and boarded based on priorities established by the program and the Marine Safety Manual (MSM).

By using MSIS, individual ports document safety deficiencies, substandard conditions or potential safety problems on vessels. This information is then called up for use by other ports prior to the vessel's arrival. Once data has been entered on a vessel, that information becomes a permanent part of the vessel file, and is easily tracked, even if the classification society or flag state is changed.

(049) SENATOR LAUTENBERG: Is it a matter of CG policy to target efforts and provide enhanced scrutiny to ships from deficient flag/classification societies? If not, why? If so, please provide a description of this policy and how it works. Please provide copies of documents from, HQ to COTP's describing procedures to target efforts on deficient flag states and classification societies.

ADMIRAL KIME: The Coast Guard does not target classification societies or flag states. Instead, the Coast Guard uses a performance based system which tracks individual vessels. Vessels meeting certain criteria, including types of cargo, latest boarding, and vessel history, are designated "high priority" vessels. We believe this approach is more effective as owners can readily change a vessel's flag state and classification society. The criteria for determining which vessels should be targeted for boarding is outlined in the Marine Safety Manual (MSM).

Attached is a copy of the Vessel Boarding Mission Performance Standards. This document is part of the Coast Guard MSM, Volume I, Chapter 2, which sets the rate of examination of high priority vessels.

Marine Safety Manual

2.K.2.b Vessel Boarding Mission Performance Standards. Using vessel histories, COTP's shall identify high priority vessels entering their zones and conduct the appropriate type of boarding (examination, supervision, or monitor) at the indicated frequency. If a vessel is not high priority, it should not be boarded. The definition of "high priority" and the mission performance standards are provided in the following paragraphs.

(1) High Priority Vessel. A high priority vessel is a vessel targeted for a boarding under any of the following criteria:

(a) Foreign non-tankship (e.g., freight, container, or passenger ships), no PES examination for a period of 12 months;

(b) Tankship or oceangoing tank barge, no monitoring for a period of 6 months;

(c) Vessel carrying cargoes of particular hazard (COPH) listed in 33 CFR 126.10(d), no cargo monitoring for a period of 3 months;

(d) Vessel carrying certain bulk dangerous cargoes and packaged hazardous materials, no monitoring for a period of 6 months;

(e) Non-oceangoing tank barge, when the COTP designates the barge as high priority for reasons such as personnel or company safety and discrepancy records, transfers at infrequently used facilities, new operations, or adverse weather;

(f) Recent history of pollution prevention, dangerous cargo, navigation or vessel safety violations with no corrective actions indicated by the MSIS, the vessel's agent, or the previous MSO;

(g) Recent history of cargo related accidents (oil spills or leaking hazardous material containers); or

(h) A situation at any facility or any vessel or other factors such as personnel or company safety and discrepancy records, transfers at infrequently used facilities, new operations, or adverse weather, which cause the COTP extra concern for the safety of the vessel, or facility or the transfer operation.

(2) Mission Performance Standards.

(a) Foreign Tankship And Tank Barge Examination. At units where the COTP is a separate command, the COTP should assist the OCMI as requested in performing the PES examination section of the foreign tank vessel examinations required by 46 U.S.C. 3711. For MSO's, the mission performance standard for foreign tank vessel examinations is provided by Commandant (G-M).

(b) Foreign Freight/Container/Passenger Ships And Other Non-Tank Vessel Examinations. Examine 100 percent of high priority foreign vessels.

(c) Military And Commercial Class A Explosive Supervision. Supervise 100 percent of the cargo operations.

(d) Radioactive Material Cargo Supervision. Supervise 100 percent of cargo operations involving "highway route controlled quantities" as defined in 49 CFR 173.403(l). For radioactive materials in quantities not meeting the definition of "highway route controlled," monitor operations under the standard for packaged hazardous materials.

(e) Blasting Agents And Oxidizers Cargo Monitor. Monitor 100 percent of high priority vessels.

(f) COPH In Bulk Cargo Monitor. Monitor 100 percent of high priority vessels.

(g) Tankship And Tank Barge Certain Bulk Dangerous Cargo Monitor. Monitor 100 percent of high priority vessels.

(h) Tankship and Tank Barge Oil Transfer Monitor. Monitor 100 percent of high priority vessels.

(i) Offshore Lightering Activities Monitor. As determined by the COTP, monitor to ensure safe level of operation.

(j) Other Monitors. As determined by the COTP, monitor as resources permit other vessel transfers of bunkers to or from vessels with a capacity of 250 barrels of oil; MARPOL Annex I or Annex II waste; and other bulk dangerous cargo (i.e., cargoes in Title 46 Subchapter D that are not listed in Subchapter O, for example, alkenylsuccinic acid).

(k) Packaged Hazardous Materials Monitor. Monitor 100 percent of high priority vessels carrying packaged hazardous materials.

SAFETY CERTIFICATION FROM DEFICIENT CLASSIFICATION SOCIETIES

(050) SENATOR LAUTENBERG: Please identify which six classification societies have the best and worst safety records based either on IMO data or any data you believe relevant. Please provide relevant data.

ADMIRAL KIME: We have only been able to obtain relevant data on the major classification societies. These seven major societies class approximately 86.5% of the world's gross registered tonnage and are recognized by the International Association of Classification Societies (IACS). The other 13.5% are classed by small classification societies. Although no individual tonnage data is available on the other small classification societies, data is available on these other societies as a group. The following is a breakdown of classification societies by gross tonnage classed and percentage of the world fleet:

Class Society	Gross Registered Tonnage	Percentage
Lloyds Register of Shipping	95,000,000	21%
American Bureau of Shipping	90,000,000	20%
Nippon Kaiji Kyokai	80,000,000	18%
Det Norske Veritas	62,000,000	14%
Bureau Veritas	33,000,000	7%
Germanischer Lloyd	18,000,000	4%
Registro Italiano Navale	11,000,000	2.5%
Other	57,000,000	13.5%

The following is a ranking of the seven major classification societies. Figures represent SOLAS interventions reported to IMO per million gross registered tons of vessel. It is interesting to note that the classification society with the best safety record is the only society that has a government agency overseeing a majority of its work. Furthermore, it is impossible to detail whether the 35 or so class societies that make up the "other" category individually have a better of worse deficiency record due to the lack of data and limited tonnage they class.

Class Society	Interventions * per Million Tons	Ranking
American Bureau of Shipping	.10	1
Det Norske Veritas	.10	2
Germanischer Lloyd	.15	3
Nippon Kaiji Kyokai	.20	4
Lloyds Register of Shipping	.30	5
Registro Italiano Navale	.40	6
Bureau Veritas	1.00	7
Other	.50	

* An intervention is defined as detention of a foreign flag vessel, by the port state, under the authority of an international convention.

NOTE: The other small societies, grouped as a whole, have a higher detention average than six of the seven listed IACS members.

(051) SENATOR LAUTENBERG: Why don't we require those vessels from some of the most deficient classification societies to obtain alternative safety certification before they enter U.S. waters?

ADMIRAL KIME: The vessel's classification society does not always necessarily indicate the vessel's degree of compliance with International or U.S. safety standards. The primary responsibility for the condition of a vessel rests on the vessel's owner.

Imposing additional safety requirements based on the safety record of the classification society is not equitable, nor does it consider the material status of the vessel itself. Once deficiencies are identified, the vessel will have a permanent record of the deficiencies, even if the classification society is changed. Information on vessels, including the classification society, which have substandard safety records is available to the Captain of the Ports (COTP) thru the Marine Safety Information System (MSIS).

(052) SENATOR LAUTENBERG: What conclusions do you draw from the shrinking number of the better classification societies and the growth of substandard classification societies?

ADMIRAL KIME: The number of better classification societies has not shrunk, but rather there is an increase in the number of vessels "jumping" from the major classification societies to the smaller ones. The following conclusions can be drawn from this trend:

(1) The major classification societies are being good to their word by enforcing their standards.

(2) The increase in the number of substandard societies is a direct result of owners' attempts to find less stringent class society requirements.

(3) The continuation of our port state control program and our international efforts to raise safety standards is essential.

Through a strict port state control program, the Coast Guard puts the maritime community, especially vessel owners, on notice that we will not allow substandard foreign vessels to trade in U.S. ports. Vessels found to be substandard will be detained at the expense of the owner until all serious deficiencies are satisfactorily corrected. Additionally, vessel owners will be subject to civil penalty action. This program encourages vessel owners to class their vessels with a recognized class society.

FLAG STATE IMPLEMENTATION IMO SUBCOMMITTEE-RECOGNIZED CLASSIFICATION SOCIETIES

(053) SENATOR LAUTENBURG: Admiral, you stated in your verbal remarks that the Flag State Implementation Subcommittee drafted information as to what would constitute a recognized classification society or any recognized agency that a flag state would delegate

responsibilities to. How will this information be used by flag states? Will all flag states be required to delegate authority to only those classification societies that fall under the definition "recognized classification society"?

ADMIRAL KIME: The IMO Flag State Implementation (FSI) Subcommittee is developing performance based guidelines for classification societies. Flag states will be able to use this information in evaluating the abilities of classification societies to perform inspections on their behalf. We will encourage flag states to use classification societies meeting the FSI Subcommittee guidance; however, the use of guidelines will be voluntary.

(054) SENATOR LAUTENBURG: Will the subcommittee or other IMO committees adopt a list of "recognized classification societies"? If so, when do you anticipate it will be published? If not, why not?

ADMIRAL KIME: The IMO Flag State Implementation (FSI) Subcommittee is developing performance based guidelines for classification societies. These guidelines will serve as international standards for classification societies. Neither the FSI Subcommittee or other IMO Committee intend to maintain a list of "recognized" classification societies. Developing an "IMO" list of classification societies would not be in keeping with the basic premises of IMO. The purpose of IMO is to develop internationally recognized standards, with the responsibility of implementation being left to the flag states.

(055) SENATOR LAUTENBURG: How will flag states be held accountable through the IMO process to ensure that they only delegate authority to "recognized classification societies"?

ADMIRAL KIME: Presently there is no process for IMO to hold flag states accountable to ensure they only delegate authority to "recognized classification societies". The Flag State Implementation guidelines for classification societies are voluntary, and there is no listing of "recognized classification societies". However, our continued port state control activities and reporting of deficiencies to IMO should reveal flag states that continue to accept less than adequate classification society surveys. Our continued restraint of trade approach and influence in the international forum will serve as incentive for flag states to come "on-line" with this program.

(056) SENATOR LAUTENBURG: Please supply a copy of the draft of this document as prepared by the FSI.

ADMIRAL KIME: A copy of the Flag State Implementation Subcommittee guidelines for classification societies follows:

ANNEX

PRELIMINARY GUIDELINES TO ASSIST FLAG STATES

1 Introduction

1.1 Under the provisions of applicable Conventions for the Safety of Life at Sea (SOLAS), Prevention of Pollution from Ships (MARPOL), on Load Lines (LL) and on Standards for Training, Certification and Watchkeeping (STCW), Administrations are responsible for promulgating laws and regulations and for taking all other steps which may be necessary to give these instruments full and complete effect so as to ensure that, from a point of view of safety of life and environment, a ship is fit for the service for which it is intended.

1.2 Administrations should improve the adequacy of the measures which are taken to give effect to those conventions and protocols which they have ratified, adopted or acceded to and ensure that they are effectively monitored. Improvement can be made through rigorous and more effective application and enforcement of national legislation. The use of these Guidelines for flag States on how to administer maritime safety and environmental protection responsibilities can help achieve this improvement.

1.3 Some flag States have encountered difficulty in fully implementing the IMO instruments and ensuring that prompt and timely surveys are conducted. Reasons for this difficulty include finances, personnel and technical expertise, delegation of authority, division of responsibilities and inadequate supervision of bodies acting on behalf of the flag State.

1.4 It should be noted that technical assistance is available to flag States experiencing difficulties in meeting their treaty responsibilities.

2 Guidelines for Flag States

2.1 In order to effectively discharge its responsibilities, flag States, in addition to enacting necessary national legislation, should:

.1 develop goals based on international instruments, to which the State is a Party, in conjunction with applicable national legislation;

.2 implement policies through the issuance of national legislation which provide a course of action for achieving the stated goals;

.3 assign responsibilities within the Administration to update and revise the goals and policies as necessary; and

.4 formally adopt the above within a long-term strategic planning document.

2.2 Flag States should seek to establish a support infrastructure capable of administering their safety and environmental protection programme which, as a minimum, consists of the following:

.1 personnel with appropriate technical expertise and background, qualified to guide, direct and manage the programme, as well as providing the continuity in service. Flag States should recruit and train suitable applicants taking full advantage of existing training and technical support assistance offered by the International Maritime Organization;

.2 administrative instructions which implement applicable international as well as any interpretative national regulations that may be needed;

.3 facilities and personnel commensurate with the number, type and tonnage of vessels registered under their flag. In determining the number, size and location of offices needed, the flag State should consider data collected from the oversight and control programme below, the amount of work delegated to other organizations and the sources of ships coming under its registry. It should be noted that evidence of non-compliance may indicate the need for greater focus on those areas to ensure compliance and/or an increase in programme resources;

.4 resources to ensure compliance with basic MARPOL, SOLAS and LL requirements using an audit and inspection programme independent of the entities delegated authority by the flag State to issue the required international certificates and documentation;

.5 resources to ensure compliance with the requirements of the STCW Convention. A flag State may issue its own STCW certification based on examination or on a policy of reciprocation. Flag States are reminded that it is the flag State, not a third party State, that is responsible for the standards of the officers and crews of the ships in its register; and

.6 resources to ensure that investigation into casualties are conducted as well as adequate and timely handling of cases of deficient ships.

2.3 Many flag States authorize organizations to act on their behalf in the surveys and inspections required under the above-mentioned conventions. Control in the assignment of such authority is needed in order to promote uniformity of inspections and maintain established standards. Therefore, any assignment of authority to recognized organizations should follow the Guidelines for Authorization of Recognized Organizations Acting on behalf of the Administration and, in particular:

.1 have formal written agreement or equivalent between the Administration and the organization being authorized;

.2 specify instructions detailing actions to be followed in the event that a ship is found not fit to proceed to sea without danger to the ship or persons on board, or presenting unreasonable threat of harm to the marine environment;

.3 provide the organization with all the appropriate instruments of national law giving effect to the Convention or specify whether the Administration's standards go beyond convention requirements in any respect;

.4 specify that the organization maintain records which can provide the Administration with data to assist in interpretation of convention regulations; and

.5 determine that the organization has adequate resources in terms of technical, managerial and research capabilities to accomplish the tasks being assigned in accordance with the Minimum Standards for the Recognized Organizations acting on behalf of the Administration.

2.4 An oversight and control programme should be an integral part of a flag State's maritime safety administration. Such programmes aid in maintaining internal quality standards, evaluation of the effectiveness of a flag State's actions in complying with convention instruments and help identify areas in IMO regulations which may need improvement. An effective programme should:

.1 provide for prompt and thorough casualty investigations, reporting back to the International Maritime Organization, as appropriate;

.2 provide a programme to collect statistical data so that trend analysis can be conducted to identify problem areas;

.3 provide for a timely response to deficiencies and alleged pollution incidents reported by port and coastal States;

.4 verify the adequacy of work performed by organizations authorized to act on its behalf;

.5 include a regular review of:

  .1 fleet loss and accident ratios to identify the trend over selected time periods;

  .2 the number of verified cases of substandard ships in relation to the size of the fleet;

  .3 responses to port State deficiency reports or interventions;

  .4 investigations into serious casualties and lessons learned therefrom; and

  .5 financial, technical and other resources committed.

3 Implementation of Guidelines

3.1 These Guidelines are intended to provide flag States with a means to establish and maintain measures for the effective application and enforcement of relevant instruments. Flag State controls may need to be supplemented with more extensive measures as appropriate based on the size, number and type of vessels in its fleet. In implementing these Guidelines, flag States are encouraged to inform IMO of any difficulties experienced in complying with these Guidelines and to apply when necessary for technical assistance.

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ANNEX

GUIDELINES FOR AUTHORIZATION OF ORGANIZATIONS ACTING ON BEHALF OF THE ADMINISTRATION

1 General

1.1 Under the provisions of regulation I/6 of SOLAS 74, article 13 of Load Lines 66, regulation 4 of Annex I and regulation 10 of Annex II of MARPOL 73/78 and article 6 of Tonnage 69, many flag States authorize organizations to act on their behalf in the surveys and certification and determination of tonnages as required by these conventions.

1.2 Control in the assignment of such authority is needed in order to promote uniformity of inspections and maintain established standards. Therefore, any assignment of authority to recognized organizations should:

.1 determine that the organization has adequate resources in terms of technical, managerial and research capabilities to accomplish the tasks being assigned, in accordance with the Minimum Standards for the Recognized Organizations acting on behalf of the Administration set out in appendix 1;

.2 have a formal written agreement between the Administration and the organization being authorized which should as a minimum include the elements as set out in appendix 2 or equivalent legal arrangements;

.3 specify instructions detailing actions to be followed in the event that a ship is found not fit to proceed to sea without danger to the ship or persons on board, or presenting unreasonable threat of harm to the marine environment;

.4 provide the Organization with all appropriate instruments of national law giving effect to the provisions of the conventions or specify whether the Administration's standards go beyond convention requirements in any respect; and

.5 specify that the organization maintain records which can provide the Administration with data to assist in interpretation of convention regulations.

2 Verification and monitoring

2.1 The Administration should establish a system to ensure the adequacy of work performed by the organizations authorized to act on its behalf. Such a system should, *inter alia*, include the following items:

.1 Procedures for communication with the organization

.2 Procedures for reporting from the organization and processing of reports by the Administration

.3 Additional ship's inspections by the Administration

.4 The Administration's evaluation/acceptance of the certification of the organization's quality system by an independent body of auditors recognized by the Administration

Appendix 1

MINIMUM STANDARDS FOR RECOGNIZED ORGANIZATIONS ACTING ON BEHALF OF THE ADMINISTRATION

An organization may be recognized by the Administration to perform statutory work on its behalf subject to compliance with the following minimum conditions for which the organization should submit complete information and substantiation.

1 General

1.1 The relative size, structure, experience and capability of the organization commensurate with the type and degree of authority intended to be delegated thereto should be demonstrated.

1.2 The organization should be able to document extensive experience in assessing the design, construction and equipment of merchant ships and, as applicable, their safety management system.

2 Specific provisions

2.1 For the purpose of delegating authority to perform certification services of a statutory nature in accordance with regulatory instruments which require the ability to review applicable engineering designs, drawings, calculations and similar technical information to technical regulatory criteria as dictated by the Administration and to conduct field survey and inspection to ascertain the degree of compliance of structural and mechanical systems and components with such technical criteria, the following should apply:

.1 The organization should provide for the publication and systematic maintenance of rules and/or regulations in the English language for the design, construction and certification of ships and their associated essential engineering systems as well as the provision of an adequate research capability to ensure appropriate updating of the published criteria.

.2 The organization should allow participation in the development of its rules and/or regulations by representatives of the Administration and other parties concerned.

.3 The organization should be established with:

.3.1 a significant technical, managerial and support staff catering also for capability of developing and maintaining rules and/or regulations; and

.3.2 a qualified professional staff to provide the required service representing an adequate geographical coverage and local representation as required.

.4 The organization should be governed by the principles of ethical behaviour, which should be contained in a Code of Ethics and as such recognize the inherent responsibility associated with a delegation of authority to include assurance as to the adequate performance of services as well as the confidentiality of related information as appropriate.

.5 The organization should demonstrate the technical, administrative and managerial competence and capacity to ensure the provision of quality services in a timely fashion.

.6 The organization should be prepared to provide relevant information to the Administration.

.7 The organization's management should define and document its policy and objectives for, and commitment to, quality and ensure that this policy is understood, implemented and maintained at all levels in the organization.

.8 The organization should develop, implement and maintain an effective internal quality system based on appropriate parts of internationally recognized quality standards no less effective than ISO 9000 series, and which, inter alia, ensures that:

.8.1 the organization's rules and/or regulations are established and maintained in a systematic manner;

.8.2 the organization's rules and/or regulations are complied with;

.8.3 the requirements of the statutory work for which the organization is authorized, are satisfied;

.8.4 the responsibilities, authorities and interrelation of personnel whose work affects the quality of the organization's services, are defined and documented;

.8.5 all work is carried out under controlled conditions;

.8.6 a supervisory system is in place which monitors the actions and work carried out by the organization;

.8.7 a system for qualification of surveyors and continuous updating of their knowledge is implemented;

.8.8 records are maintained, demonstrating achievement of the required standards in the items covered by the services performed, as well as the effective operation of the quality system; and

.8.9 a comprehensive system of planned and documented internal audits of the quality related activities in all locations is implemented.

.9 The organization should be subject to certification of its quality system by an independent body of auditors recognized by the Administration.

2.2 For the purpose of delegating authority to perform certification services of a statutory nature in accordance with regulatory instruments which require the ability to assess by audit and similar inspection of the relevant safety management system attributes of shore based ship management entities and shipboard personnel and systems, the following should, in addition, apply:

.1 The provision and application of proper procedures to assess the degree of compliance of the applicable shore-side and shipboard safety management systems.

.2 The provision of a systematic training and qualification regime for its professional personnel engaged in the safety management system certification process to ensure proficiency in the applicable quality and safety management criteria as well as adequate knowledge of the technical and operational aspects of maritime safety management.

.3 The means of assessing through the use of qualified professional staff the application and maintenance of the safety management system both shore based as well as on board ships intended to be covered in the certification.

Appendix 2

ELEMENTS TO BE INCLUDED IN AN AGREEMENT

A formal written agreement or equivalent between the Administration and the recognized organization should as a minimum cover the following items:

1 Application

2 Purpose

3 General conditions

4 The execution of functions under authorization

  .1 Functions in accordance with the general authorization

  .2 Functions in accordance with special (additional) authorization

  .3 Relationship between the organization's statutory and other related activities

  .4 Functions to co-operate with Port States to facilitate the rectification of reported Port State Control deficiencies or the discrepancies within the organization's purview.

5 Legal basis of the functions under authorization

  .1 Acts, regulations and supplementary provisions

  .2 Interpretations

  .3 Deviations and equivalent solutions

6 Reporting to the Administration

  .1 Procedures for reporting in the case of general authorization

  .2 Procedures for reporting in the case of special authorization

  .3 Reporting on classification of ships (assignment of class, alterations and cancellations), as applicable

  .4 Reporting of cases where a ship did not in all respects remain fit to proceed to sea without danger to the ship or persons on board or presenting unreasonable threat or harm to the environment

  .5 Other reporting

7 Development of rules and/or regulations - Information

  .1 Co-operation in connection with development of rules and/or regulations - liaison meetings

  .2 Exchange of rules and/or regulations and information

  .3 Language and form

8 Other conditions

- .1 Remuneration
- .2 Rules for administrative proceedings
- .3 Confidentiality
- .4 Liability
- .5 Financial responsibility
- .6 Entry into force
- .7 Termination
- .8 Breach of agreement
- .9 Settlement of disputes
- .10 Use of sub-contractors
- .11 Issue of the agreement
- .12 Amendments

9 Specification of the authorization from the Administration to the organization

- .1 Ship types and sizes
- .2 Conventions and other instruments, including relevant national legislation
- .3 Approval of drawings
- .4 Approval of material and equipment
- .5 Surveys
- .6 Issuance of certificates
- .7 Corrective actions
- .8 Withdrawal of certificates
- .9 Reporting

10 The Administration's supervision of duties delegated to the organization

- .1 Documentation of quality assurance system
- .2 Access to internal instructions, circulars and guidelines
- .3 Access by the Administration to the organization's documentation relevant to the Administration's fleet
- .4 Co-operation with the Administration's inspection and verification work
- .5 Provision of information and statistics on, e.g. damage and casualties relevant to the Administration's fleet

INTERNAL AUDITS OF CLASSIFICATION SOCIETIES

(057) SENATOR LAUTENBERG: Admiral, you stated in your verbal remarks that the classification societies on their own have adopted, under the guidelines of ISO 9000, an internal auditing procedure, and that classification societies are currently undergoing this procedure. How many classification societies have undergone this procedure? Are all classification societies expected to undergo this procedure?

ADMIRAL KIME: All members of the International Association of Classification Societies (IACS) are currently undergoing audits to ISO 9000 guidelines. IACS membership is composed of the eleven major class societies and represents 90% of all the world ocean shipping fleet. IACS members must demonstrate that they meet ISO 9000 process guidelines to an independent IACS audit team. The audit team will meet in March of 1994 to finish the audits, anyone who does not meet ISO 9000 quality process standards at that time will not be allowed to remain a member of IACS. These audits are not mandatory. Therefore, it is expected that not all classification societies will undego this procedure.

(058) SENATOR LAUTENBERG: Admiral, you stated in your verbal remarks that the classification societies on their own have adopted, under the guidelines of ISO 9000, an internal auditing procedure, and that classification societies are currently undergoing this procedure. Are you confident that the IMO representative participating in these audits will ensure that all classification societies, having once undergone these audits, will no longer be substandard?

ADMIRAL KIME: First, let me clarify the point that the audits are under the auspices of the International Association of Classification Societies (IACS) not IMO, but there is one IMO representative on the audit team. The Coast Guard is not going to solely rely only on the IACS audit team to ensure that classification societies are doing quality work. We will continue to conduct our own inspection and oversight program, and we will notify both IACS and the class society when we observe non-conformities on the vessels they class.

ISO 9000 process guidelines are designed to ensure that an organization establishes and maintains quality process procedures. To ensure quality continues, the audits will not stop after the initial certification. Each IACS member will undergo a full recertification to ISO 9000 guidelines triennially with annual intermediate audits.

(059) SENATOR LAUTENBERG: Admiral, you stated in your verbal remarks that the classification societies on their own have adopted, under the guidelines of ISO 9000, an internal auditing procedure, and that classification societies are currently undergoing this procedure. What ramifications are there for those classification societies that do not fare well in the internal audits?

ADMIRAL KIME: They will lose their member status in the International Association of Classification Societies (IACS). This will reduce their credibility and standing in the world maritime community. This is significant as ICAS members currently class 90% of the world oceangoing commercial ship fleet.

(060) SENATOR LAUTENBERG: Admiral, you stated in your verbal remarks that the classification societies on their own have adopted, under the guidelines of ISO 9000, an internal auditing procedure, and that classification societies are currently undergoing this procedure. Given the extraordinary diversity in quality that currently exists between classification societies, why do you believe that the classification societies should be trusted to police themselves through this mechanism?

ADMIRAL KIME: We are looking to the classification societies that are members of the International Association of Classification Societies (IACS) to take the lead in establishing a credible audit program to ISO 9000 guidelines. IACS will act as the auditor of the membership, which is composed of the major class societies, eleven in all, representing 90% of the world ocean shipping fleet. It is not in the interest of the IACS general membership to allow any one member to reduce the credibility they share as an organization. Because of this, I am confident that the members will police each other through the parent association. However, the Coast Guard will continue to conduct our own inspection and oversight program on individual foreign vessels for compliance with U.S. and international standards. We will continue to notify flag states and class societies of serious non-conformities.

(061) SENATOR LAUTENBERG: In your verbal remarks, you observed that you thought the Protection and Indemnity (P&I) clubs were being irresponsible in neglecting to participate in the audits of the classification societies, even though they would not be required to contribute to the costs of such audits. Given that the P&I clubs usually pay in their pocketbook when they insure substandard ships that encounter casualties, why do you believe that they bear further responsibilities in the quality of the classification societies themselves?

ADMIRAL KIME: It is not just a matter of whether there is a financial incentive to eliminate substandard vessels, rather, we view the P&I clubs as an integral part of the world maritime community which should join in the effort to promote safe vessels. The International Association of Classification Societies (IACS) is still working with the P&I clubs to obtain their participation in the audits of the classification societies. Part of the problem in obtaining their participation is that they lack an umbrella organization which represents all of the P&I clubs.

FLAG STATE IMPLEMENTATION (FSI) SUBCOMMITTEE GUIDANCE

(062) SENATOR LAUTENBURG: You stated in your verbal remarks that the FSI has forwarded as an assembly resolution a guidance to port states for operational controls that should be applied to vessels. Please provide a copy of this guidance.

ADMIRAL KIME: A copy of the Flag State Implementation Subcommittee's proposed assembly resolution on "Procedures for Control of Operational Requirements Related to the Safety of Ships and Pollution Prevention" follows:

ANNEX

PROCEDURES FOR CONTROL OF OPERATIONAL REQUIREMENTS RELATED TO THE SAFETY OF SHIPS AND POLLUTION PREVENTION

1 INTRODUCTION

1.1 The Contracting Governments of and the Parties to the International Convention for the Safety of Life at Sea, as amended (SOLAS 74), the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 1978) have undertaken to give effect to the provisions of these Conventions in order to ensure that, from the point of view of safety of life, a ship is fit for the service for which it is intended and to prevent pollution of the marine environment by the discharge of harmful substances.

1.2 The primary responsibility for securing those objectives in relation to any particular ship rests with the Administration of the flag State. No attempt is made in this document to lay down guidelines for Administrations in this respect.

1.3 Regulation 19 of chapter I of SOLAS 74, articles 5 and 6 of MARPOL 73/78 and article X of STCW 1978 provide for the control of foreign ships to be exercised by officers duly authorized by Contracting Governments or Parties, as appropriate.

1.4 Accidents involving passenger ships and ships carrying harmful substances have highlighted the need for good operational standards and onboard procedures. These standards and procedures are primarily the concern of flag States, but it may be difficult for some Administrations to exercise full and continuous control of ships entitled to fly their flag under certain circumstances, such as the cargo the ship carries and the familiarity of the crew with the ship which can change completely between two successive flag State inspections and the fact that some ships do not regularly call at flag States' national ports.

1.5 In fulfilling their control obligations, port State authorities carry out inspections on foreign ships in their ports to check the validity of certificates and documents. In the absence of valid certificates or documents, or if there are clear grounds for believing that the condition of a ship or of its equipment, or its crew, does not substantially meet the requirements of a relevant instrument, a more detailed inspection may be carried out. It follows that, as port States have a legitimate interest in the safety of passengers and crew on board foreign ships calling at their ports and in the protection of the environment, it is necessary for them to include control of compliance with on board operational requirements in their control procedures.

1.6 In this context, "clear grounds" for the application of relevant operation procedures means:

.1 evidence of operational shortcomings revealed during port State control procedures in accordance with SOLAS 74, MARPOL 73/78 and STCW 1978;

.2 evidence of cargo and other operations not being conducted safely or in accordance with IMO guidelines;

.3 involvement of the ship in incidents due to failure to comply with operational requirements;

.4 evidence, from observation of a fire and abandon ship drill, that the crew are not familiar with essential procedures;

.5 absence of an up-to-date muster list;

.6 indications that key crew members may not be able to communicate with each other or with other persons on board.

1.7 Nothing in these procedures should be construed as restricting the powers of any Contracting Government or Party to take measures within its jurisdiction in respect of any matter to which SOLAS 74, MARPOL 73/78 and STCW 1978 relate.

1.8 When exercising control of the compliance with operational requirements, all possible efforts shall be made to avoid a ship being unduly detained or delayed. If a ship is thereby unduly detained or delayed, it shall be entitled to compensation for any loss or damage suffered in accordance with procedures determined by the port State. In the event of dispute, the onus of proving that undue delay was not caused rests with the port State.

1.9 This document sets out procedures and guidelines for the control of operational requirements, for all ships under SOLAS 74, MARPOL 73/78 and STCW 78.

2 GUIDELINES FOR CONTROL OF OPERATIONAL REQUIREMENTS

When, during a port State control inspection, the surveyor has clear grounds according to 1.6 above, the following on-board operational procedures may be checked in accordance with this resolution. However, in exercising controls recommended in these guidelines, the surveyor should not include any operational tests or impose physical demands which, in the judgement of the master, could jeopardize the safety of the ship, crew, passengers, surveyors or cargo.

It is not envisaged that all of these procedures would be checked during a single port State control inspection, unless the condition of the ship necessitates such a detailed inspection. In addition, these procedures are not intended to impose the seafarer certification programme of the port State on a ship entitled to fly the flag of another Party to the STCW Convention or to impose control procedures on foreign ships in excess of those imposed on ships of the port State.

Muster list

2.1 The surveyor may determine if the crew members are aware of their duties indicated in the muster list.

Communication

2.2 The surveyor may determine if the key crew members are able to communicate with each other, and with passengers as appropriate, in such a way that the safe operation of the ship is not impaired, especially in emergency situations.

Fire and abandon ship drills

2.3 The surveyor witnessing a fire and abandon ship drill should ensure that the crew are familiar with their duties and the proper use of the ship's installations and equipment.

Damage control plan

2.4 The surveyor may determine if a damage control plan is provided on a passenger ship and whether the crew are familiar with their duties and the proper use of the ship's installations and equipment for damage control purposes.

Fire control plan

2.5 The surveyor may determine if a fire control plan or booklet is provided and whether the crew are familiar with the information given in the fire control plan or booklet.

Bridge operation

2.6 The surveyor may determine if officers in charge of a navigational watch are familiar with bridge control and navigational equipment, changing the steering mode from automatic to manual and vice versa, and the ship's manoeuvring characteristics.

Cargo operation

2.7 The surveyor may determine if ship's personnel assigned specific duties related to the cargo and cargo equipment are familiar with those duties, any dangers posed by the cargo and with the measures to be taken in such a context.

Operation of the machinery

2.8 The surveyor may determine if responsible ship's personnel are familiar with their duties related to operating essential machinery such as:

.1 emergency and stand-by sources of electrical power;

.2 auxiliary steering gear;

.3 bilge and fire pumps; and

.4 any other equipment essential in emergency situations.

Manuals, instructions, etc.

2.9 The surveyor may determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition and operation of the ship and its equipment and that they are aware of the requirements for maintenance, periodical testing, training and drills and of necessary log-book entries.

Oil and oily mixtures from machinery spaces

2.10 The surveyor may determine if all operational requirements of annex I of MARPOL 73/78 have been met, taking into account:

.1 the quantity of oil residues generated;

.2 the capacity of sludge and bilge water holding tanks; and

.3 the capacity of the oily water separator,

including the inspection of the oil record book. The surveyor may determine if reception facilities have been used and note any alleged inadequacy of such facilities.

Loading, unloading and cleaning procedures for cargo spaces of tankers

2.11 The surveyor may determine if all operational requirements of annexes I or II of MARPOL 73/78 have been met, taking into account the type of tanker and the type of cargo carried, including the inspection of the oil record book and/or cargo record book. The surveyor may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.

Dangerous goods and harmful substances in packaged form

2.12 The surveyor may determine if the required shipping documents for the carriage of dangerous goods and harmful substances carried in packaged form are provided on board and whether the dangerous goods and harmful substances are properly stowed and segregated and the crew are familiar with the essential actions to be taken in an emergency involving such packaged cargo.

Garbage

2.13 The surveyor may determine if all operational requirements of annex V of MARPOL 73/78 have been met. The surveyor may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.

3 DEFICIENCIES

It is impracticable to define a ship as substandard solely by reference to a list of qualifying defects. Having assessed the extent to which operational requirements are complied with, the surveyor then has to exercise his professional judgement to determine whether the operational proficiency of the crew as a whole is of a sufficient level to allow the ship to sail without a major risk for the safety of life at sea or threat to the marine environment, or whether a better level of proficiency should be required. For this latter purpose, following the procedures set out in resolution A.481(XII), the ship may be detained.

4 OTHER RELEVANT PORT STATE CONTROL PROCEDURES

All other port State control procedures not explicitly dealt with in this annex shall be governed by the relevant recommendations in resolutions A.466(XII), A.481(XII), A.542(13) and MEPC.26(23).

Appendix

GUIDELINES FOR THE CONTROL OF OPERATIONAL REQUIREMENTS RELATED TO THE SAFETY OF SHIPS AND POLLUTION PREVENTION

The following paragraphs give detailed guidelines on how surveyors may carry out operational control, based on the provisions of Resolution A.681(17). The procedures and guidance contained in that resolution and its Annex should also be taken into account.

When carrying out operational control, the surveyor should ensure, as far as possible, no interference with normal shipboard operations, such as loading and unloading of cargo and ballasting, which is carried out under the responsibility of the master nor should the surveyor require demonstration of operational aspects which would unnecessarily delay the ships concerned.

1 Muster list

1.1 The surveyor may determine if the crew members are aware of their duties indicated in the muster list.

1.2 The surveyor may ensure that muster lists are exhibited in conspicuous places throughout the ship including the navigational bridge, the engine room and the crew accommodation spaces.
When determining if the muster list is in accordance with the regulations, the surveyor may verify whether:

.1 the muster list shows the duties assigned to the different members of the crew;

.2 the muster list specifies which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use;

.3 the muster list specifies the substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions;

.4 the muster list shows the duties assigned to crew members in relation to passengers in case of emergency;

.5 the format of the muster list used on passenger ships is approved.

1.3 To determine whether the muster list is up-to-date, the surveyor may require an up-to-date crew list, if available, to verify this. Other possible means, e.g. Safe Manning Document, may be used for this purpose.

1.4 The surveyor may determine whether the duties assigned to crew members manning the survival craft (lifeboats or life rafts) are in accordance with the regulations and verify that a deck officer or certified person is placed in charge of each survival craft to be used. However, the Administration (of the flag State), having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship may permit persons practised in the handling and operation of life rafts to be placed in charge of life rafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.

1.5 The surveyor may determine whether the crew members are familiar with the duties assigned to them in the muster list and are aware of the locations where they should perform their duties.

2 Communication

2.1 The surveyor may determine if the key crew members are able to communicate with each other, and with the passengers as appropriate, in such a way that the safe operation of the ship is not impaired, especially in emergency operations.

2.2 The surveyor may ask the master which languages are used as the working languages.

2.3 The surveyor may ensure himself that the key crew members are able to understand each other during the inspection or drills. Key crew members assigned to assist passengers should be able to give the necessary information to the passengers in case of an emergency.

3 Fire and abandon ship drills

3.1 The surveyor witnessing a fire and abandon ship drill should ensure that the crew are familiar with their duties and the proper use of the ship's installations and equipment.

3.2 Fire drills

.1 The surveyor may witness a fire drill carried out by the crew assigned to these duties on the muster list. After consultation with the master of the vessel one or more specific locations of the ship may be selected for a simulated fire. A crew member may be sent to the location(s) and activate a fire alarm system or use other means to give alarm.

.2 At the location the surveyor can describe the fire indication to the crew member and observe how the report of fire is relayed to the bridge or damage control centre. At this point most ships will sound the crew alarm to summon the fire fighting parties to their stations. The surveyor should observe the fire fighting party arriving on the scene, breaking out their equipment and fighting the simulated fire. Team leaders should be giving orders as appropriate to their crews and passing the word back to the bridge or damage control centre on the conditions. The fire fighting crews should be observed for proper donning and the use of their equipment. He should make sure that all the gear is complete. Merely mustering the crew with their gear is not acceptable. Crew response to personnel injuries can be checked by selecting a crew member as a simulated casualty. The surveyor should observe how the word is passed and the response of stretcher and medical teams. Handling a stretcher properly through narrow passageways, doors and stairways is difficult and takes practice.

.3 The drill shall, as far as practicable, be conducted as if there were an actual emergency.

.4 Those crew members assigned to other duties related to a fire drill, such as the manning of the emergency generators, the CO2 room, the sprinkler and emergency fire pumps, should also be involved in the inspection. The surveyor may ask these crew members to explain their duties and if possible to demonstrate their familiarity.

.5 On passenger ships, special attention should be paid to the duties of those crew members assigned to the closing of manually operated doors and fire dampers. These closing devices should be operated by the responsible persons in the areas of the simulated fire(s) during the drill. Crew members not assigned to the fire fighting teams are generally assigned to locations throughout the passenger accommodations to assist in passenger evacuation. These crew members should be asked to explain their duties and the meaning of the various emergency signals and asked to point out the two means of escape from the area, and where the passengers are to report. Crew members assigned to assist passengers should be able to communicate at least enough information to direct a passenger to the proper muster area.

3.3 Abandon ship drills

.1 After consultation with the master, the surveyor may require an abandon ship drill for one or more survival crafts. The essence of this drill is that the survival crafts are manned and operated by the crew members assigned to them on the muster list. If possible the surveyor should include the rescue boat (s) in this drill. SOLAS 74, Chapter III, is giving specific requirements on abandon ship training and drills, of which the following principles are particularly relevant.

.2 The drill shall, as far as practicable, be conducted as if there were an actual emergency.

.3 The abandon ship drill shall include:

.1 summoning of (passengers and) crew to the muster station(s) with the required alarm and ensuring that they are aware of the order to abandon ship as specified in the muster list;

.2 reporting to the stations and preparing for the duties described in the muster list;

.3 checking that (passengers and) crew are suitable dressed;

.4 checking that life jackets are correctly donned;

.5 lowering of at least one lifeboat after the necessary preparation for launching;

.6 starting and operating the lifeboat engine;

.7 operation of the davits used for launching life rafts.

.4 If the lifeboat lowered during the drill is not the rescue boat, the rescue boat shall be lowered as well, taking into account that it is boarded and launched in the shortest possible time. The surveyor shall ensure that crew members are familiar with the duties assigned to them during abandon ship operations and that the crew member in charge of the survival craft has complete knowledge of the operation and equipment of the survival craft.

.5 Each survival craft shall be stowed in a state of continuous readiness so that two crew members can carry out preparations for embarking and launching in less than 5 minutes.

.6 On passenger ships, it is required that lifeboats and davit-launched life rafts are capable of being launched within a period of 30 minutes.

.7 On cargo ships, it is required that lifeboats and davit launched life rafts are capable of being launched within a period of 10 minutes.

4 Damage control plan

4.1 The surveyor may determine if a damage control plan is provided on a passenger ship and whether the crew are familiar with their duties and the proper use of the ship's installations and equipment for damage control purposes.

4.2 The surveyor may determine if the officers of the ship are aware of the contents of the damage control booklet which shall be available to them, or of the damage control plan.

4.3 The officers may be asked to explain the action to be taken in various damage conditions.

4.4 The officers may also be asked to explain about the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof and the arrangements for the correction of any list due to flooding.

4.5 The officers should have a sound knowledge of the effect of trim and stability of their ship in the event of damage to and consequent flooding of a compartment and counter measures to be taken.

5 Fire control plan

5.1 The surveyor may determine if a fire control plan or booklet is provided and whether the crew are familiar with the information given in the fire control plan or booklet.

5.2 The surveyor may verify that fire control plans are permanently exhibited for the guidance of the ships officers. Alternatively, booklets containing the information of the fire control plan, may be supplied to each officer, and one copy shall at all times be available on board in an accessible position. Plans and booklets shall be kept up-to-date, any alterations being recorded thereon as soon as possible.

5.3 The surveyor may determine that the responsible officers, especially those who are assigned to related duties on the muster list, are aware of the information provided by the fire control plan or booklet and how to act in case of a fire.

5.4 The surveyor may ensure that the officers in charge of the ship are familiar with the principal structural members which form part of the various fire sections and the means of access to the different compartments.

6 Bridge operation

6.1 The surveyor may determine if officers in charge of a navigational watch are familiar with bridge control and navigational equipment, changing the steering mode from automatic to manual and vice versa, and the ships manoeuvring characteristics.

6.2 The officer in charge of a navigational watch should have knowledge of the location and operation of all safety and navigational equipment. Moreover he shall be familiar with procedures which apply to the navigation of the ship in all circumstances and he shall be aware of all information available to him.

6.3 The surveyor may also verify the familiarity of the officers on all the information available to them such as manoeuvring characteristics of the ship, life saving signals, up-to-date nautical publications, checklists concerning bridge procedures, instructions, manuals, etc.

6.4 The surveyor may verify the familiarity of the officers with procedures such as periodical tests and checks of equipment, preparations for arrival and departure, change over of steering modes, signalling, communications, manoeuvring, emergencies and logbook entries.

7 Cargo operations

7.1 The surveyor may determine if ships personnel assigned with specific duties related to the cargo and cargo equipment are familiar with those duties, and dangers posed by the cargo and with the measures to be taken in such a context.

7.2 With respect to the carriage of solid bulk cargoes the surveyor may determine whether cargo operations are conducted in a manner such as to not overstress or damage the structure of the ship.

7.3 The surveyor, when appropriate, may determine whether the responsible crew members are familiar with the relevant provisions of the Code of Safe Practice for Solid Bulk Cargoes, particularly those concerning moisture limits and trimming of the cargo, the Code of Safe Practice for Ships carrying Timber Deck Cargoes and the Code of Safe Practice for Cargo Stowage and Securing.

7.4 Some solid materials transported in bulk can present a hazard during transport because of their chemical nature or physical properties. Section 2 of the Bulk Code gives general precautions. Section 4 of the Bulk Code contains the obligation imposed on the shipper to provide all necessary information to ensure a safe transport of the cargo. The surveyor may determine whether all relevant details, including all relevant certificates of tests, have been provided to the master from the shipper.

7.5 For some cargoes, such as cargoes which are subject to liquefaction, special precautions are given (see Section 7 of the Bulk Code). The surveyor may determine whether all precautions are met with special attention for the stability of those vessels engaged in the transport of cargoes subject to liquefaction and solid hazardous waste in bulk.

7.6 Officers responsible for cargo handling and operation and key crew members of oil tankers, chemical tankers and liquefied gas carriers should be familiar with the cargo and cargo equipment and with the safety measures as stipulated in the relevant sections of the IBC and IGC Codes.

7.7 For the carriage of grain reference is made to Chapter VI of SOLAS. The surveyor may determine if all general provisions are met, in particular Securing (Regulation 6), Authorization (Regulation 10) and Grain Loading Information (Regulation 11).

7.8 The surveyor may determine whether the operations and loading manuals include all the relevant information for safe loading and unloading operations in port as well as in transit conditions.

8 Operation of machinery

8.1 The surveyor may determine if responsible ships personnel are familiar with their duties related to operating essential machinery, such as:

.1 emergency and stand-by sources of electrical power;

.2 auxiliary steering gear;

.3 bilge and fire pumps; and

.4 any other equipment essential in emergency situations.

8.2 The surveyor may verify whether the responsible ships personnel are familiar with, inter alia,

Emergency generator:

- actions which are necessary before the engine can be started
- different possibilities to start the engine in combination with the source of starting energy
- procedures when the first attempts to start the engine fail

Stand-by generator engine:

- possibilities to start the stand-by engine, automatic or by hand
- blackout procedures
- load sharing system

8.3 The surveyor may verify whether the responsible ships personnel are familiar with, inter alia,

- which type of auxiliary steering gear system applies to the ship
- how it is indicated which steering gear unit is in operation
- what action is needed to bring the auxiliary steering gear into operation

8.4 The surveyor may verify whether the responsible ships personnel are familiar with, inter alia,

Bilge pumps:

- number and location of bilge pumps installed on board the ship (including emergency bilge pumps)
- starting procedures for all these bilge pumps
- appropriate valves to operate
- most likely causes of failure of bilge pump operation and their possible remedies

Fire pumps:

- number and location of fire pumps installed on board the ship (including the emergency fire pump)
- starting procedures for all these pumps
- appropriate valves to operate

8.5 The surveyor may verify whether the responsible ships personnel are familiar with, inter alia,

- starting and maintenance of lifeboat engine and/or rescue boat engine
- local control procedures for those systems which are normally controlled from the navigating bridge
- use of the emergency and fully independent sources of electrical power of radio installations
- maintenance procedures for batteries
- emergency stops, fire detection system and alarm system operation of watertight and fire doors (stored energy systems)

- change of control from automatic to manual for cooling water and lube oil systems for main and auxiliary engines.

9 Manuals, instructions, etc.

9.1 The surveyor may determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition of the ship and its equipment and that they are aware of the requirements for maintenance, periodical testing, training, drills and recording of logbook entries.

9.2 The following information should i.a. be provided on board and surveyors may determine whether they are in a language or languages understood by the crew and whether crew members concerned are aware of the contents and are able to respond accordingly:

.1 instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept under one cover, readily available in an accessible position;

.2 clear instructions to be followed in the event of an emergency shall be provided for every person on board;

.3 illustrations and instructions in appropriate languages shall be posted in passenger cabins and be conspicuously displayed at muster stations and other passenger spaces to inform passengers of their muster station, the essential actions they must take in an emergency and the method of donning life jackets;

.4 posters and signs shall be provided in or in the vicinity of survival craft and their launching controls and shall illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings;

.5 instructions for on board maintenance of life saving appliances;

.6 training manuals shall be provided in each crew mess room and recreation room or in each crew cabin. The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances provided in the ship and on the best method of survival.

.7 Shipboard Oil Pollution Emergency Plan in accordance with MARPOL 73/78, Annex I, regulation 26;

.8 stability booklet, associated stability plans and stability information.

10 Oil and oily mixtures from machinery spaces

10.1 The surveyor may determine if all operational requirements of Annex I of MARPOL 73/78 have been met, taking into account:

.1 the quantity of oil residues generated;

.2 the capacity of sludge and bilgewater holding tank(s); and

.3 the capacity of the oily water separator,

including the inspection of the oil record book. The surveyor may determine if reception facilities have been used and note any alleged inadequacy of such facilities.

10.2 The surveyor may determine whether the responsible officer is familiar with the handling of sludge and bilgewater. The relevant items from the guidelines for systems for handling oily wastes in machinery spaces of ships may be used as guidance. Taking into account the above, the surveyor may determine if the ullage of the sludge tank is sufficient for the expected generated sludge during the next intended voyage. The surveyor may verify that, in respect of ships for which the Administration has waived the requirements of Regulation 16(1) and (2), all oily bilgewater is retained on board for subsequent discharge to a reception facility.

10.3 When reception facilities in other ports have not been used because of inadequacy, the surveyor should advise the Master to report the inadequacy of the reception facility to his own flag State, in conformity with MEPC Circular 215 of 25 April 1989.

11 Loading, unloading and cleaning procedures for cargo spaces of tankers

11.1 The surveyor may determine if all operational requirements of Annex I or II of MARPOL 73/78 have been met, taking into account the type of tanker and the type of cargo carried, including the inspection of the oil record book and/or cargo record book. The surveyor may determine if the reception facilities have been used and note any inadequacy of such facilities.

11.2 For the control on loading, unloading and cleaning procedures for tankers carrying oil, reference is made to Resolution 542(13) i.e. Procedures for the control of ships and discharges under Annex I of MARPOL 73/78. In Chapter 4 of the said Procedures guidance is given for the inspection of crude oil washing (COW) operations. In Appendix 3 the surveyor may find detailed guidelines for in-port inspection of crude oil washing procedures.

11.3 For the control on loading, unloading and cleaning procedures for tankers carrying noxious liquid substances, reference is made to Resolution MEPC 26(23) i.e. Procedures for the control of ships and discharges under Annex II of MARPOL 73/78. In Chapter 4 of the said Procedures guidance is given for the inspection of unloading, stripping and prewash operations. In Appendix 3 more detailed guidelines for these inspections are given.

11.4 When reception facilities in other ports have not been used because of inadequacy, the surveyor should advise the Master to report the inadequacy of the reception facility to his own flag State; in conformity with MEPC Circular 215 of 25 April 1989.

12 Dangerous goods and harmful substances in packaged form

12.1 The surveyor may determine if the required shipping documents for the carriage of dangerous goods and harmful substances carried in packaged form are provided on board and whether the dangerous goods and harmful substances are properly stowed and segregated and the appropriate crew members are familiar with the essential actions to be taken in an emergency involving such packaged cargo.

12.2 Ship types and cargo spaces of ships built after 1 September 1984 intended for the carriage of dangerous goods shall comply with the requirements of SOLAS Regulation II-2/54, in addition to the requirements of Regulation II-2/53 (for cargo ships) and the requirements of Regulations II-2/3 and II-2/39 (for passenger ships), unless such requirements have already been met by compliance with the requirements elsewhere in the Convention. The only exemption is when dangerous goods in limited quantities are carried.

12.3 Annex III of MARPOL 73/78, contains requirements for the carriage of harmful substances in packaged form which are identified in the IMDG Code as marine pollutants. Cargoes which are determined to be marine pollutants, should be labelled and stowed in accordance with Annex III of MARPOL 73/78.

12.4 The surveyor may determine whether a Document of Compliance is on board and whether the ships personnel are familiar with this document provided by the Administration as evidence of compliance of construction and equipment with the requirements of this regulation.
Additional control may consist of:

- control whether the dangerous goods have been stowed on board in conformity with the Document of Compliance, using the dangerous goods manifest or the stowage plan, required by SOLAS Chapter VII. This manifest or stowage plan may be combined with the one required under Annex III.

- control whether inadvertent pumping of leaking flammable or toxic liquids is not possible in case these substances are carried in under-deck cargo spaces.

- determining whether the ship' personnel are familiar with their relevant provisions of the Medical First Aid Guide and Emergency Procedures for Ships Carrying Dangerous Goods.

13 Garbage

13.1 The surveyor may determine if all operational requirements of Annex V of MARPOL 73/78 have been met. The surveyor may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.

13.2 "Guidelines for the implementation of Annex V of MARPOL 73/78" were approved at the MEPC at its 29th session and have been published. One of the objectives of these guidelines is: "to assist vessel operators in complying with the requirements set forth in Annex V and domestic laws".

13.3 The surveyor may determine whether:

- ship's personnel are aware of these Guidelines in particular Section 3 "Minimizing the amount of potential garbage" and Section 4 "Shipboard garbage handling and storage procedures"

- ship's personnel are familiar with the discharge requirements under Annex V inside and outside a Special Area and are aware of the Areas determined as Special Areas under Annex V.

13.4 When reception facilities in other ports have not been used because of inadequacy, the surveyor should advise the Master to report the inadequacy of the reception facility to his own flag State, in conformity with MEPC Circular 215 of 25 April 1989.

FLAG STATE IMPLEMENTATION (FSI) SUBCOMMITTEE GUIDANCE

(063) SENATOR LAUTENBURG: Will this guidance be mandatory or voluntary on the part of the port states? If voluntary, what confidence do you have that this guidance will be followed by all port states?

ADMIRAL KIME: The Flag State Implementation Subcommittee guidance regarding port state control identifies international port state control inspection guidelines. This guidance will be in the form of an Assembly resolution which will be voluntary on the part of port states. However, I am confident that port states will view this guidance favorably and that several nations will implement the voluntary standards as national law. Port states not implementing the guidance will be under international pressure to adopt the guidance by the participating port states. Additionally, the Marine Safety Committee has recommended that these guidelines be made mandatory by an amendment to the 1974 SOLAS Convention.

(064) SENATOR LAUTENBURG: You stated in your verbal remarks that the FSI developed a guidance for flag states, but recommended it to serve as a Marine Safety Committee (MSC) circular. Why in your view, is it inadequate for this guidance to be promulgated as a circular?

ADMIRAL KIME: We support the Flag State Implementation Subcommittee guidance for flag states as a method of improving safety for the international shipping fleet. Recognizing the significance of this guidance, we have been successful at getting the Marine Safety Committee to agree to recommend that this guidance be adopted as an assembly resolution in lieu of a circular. This will increase the importance of the guidelines and provide maximum dissemination and wider acceptance.

(065) SENATOR LAUTENBURG: With this guidance presented as a resolution, will it then be mandatory for all flag states?

ADMIRAL KIME: As an assembly resolution, the Flag State Implementation Subcommittee guidance for flag states will remain voluntary.

(066) SENATOR LAUTENBURG: If this guidance is voluntary, what difference does it make that it is recommended as a circular rather than a resolution?

ADMIRAL KIME: As an Assembly resolution, the Flag State Implementation (FSI) Subcommittee guidance will receive the endorsement of the Marine Safety Committee and the Marine Environmental Protection Committee. This will emphasize the level of importance of the guidelines, ensure maximum dissemination, and will result in a wider degree of acceptance by flag states than it would receive as a circular.

(067) SENATOR LAUTENBURG: If such guidance is voluntary, how hopeful are you that it will be followed by all flag states?

ADMIRAL KIME: I am hopeful that the Flag State Implementation (FSI) Subcommittee guidance will be followed by a majority of the flag states. The FSI Subcommittee has made every effort to include all flag states in the development of this guidance. This approach should promote a rapid acceptance and implementation of this guidance.

(068) SENATOR LAUTENBURG: What port state measures do you envision taking if the majority of major flag states do not adhere to this guidance?

ADMIRAL KIME: I intend to continue U.S. examination activities as a port state. We intend to retain our present enforcement posture of not allowing substandard foreign vessels to trade in U.S. ports. Vessels found to be substandard will be detained at the expense of the owner, until all serious deficiencies are satisfactorily corrected. Continuing our port state activities in this fashion will provide a strong incentive for flag states to endorse the FSI guidance. In addition, we intend to press forward at IMO to make these guidelines mandatory.

COMMERCIAL FISHING VESSEL SAFETY REGULATIONS

(069) SENATOR LAUTENBERG: Please provide an update on the effectiveness of the Commercial Fishing Vessel Safety Regulations over the last year. Considering the comprehensive nature of the regulations and the inherent safety problems to be overcome, how long do you estimate that it will take before you are satisfied with the effectiveness of these standards?

ADMIRAL KIME: Because of the comprehensive nature of the regulations, large population of vessels and fishermen estimated at 111,000 and 250,000 respectively, and the relative infancy of our safety initiative, the Coast Guard estimates that a 4-5 year time period is needed to fully evaluate the program. At that time, the Coast Guard expects to have better evidence as to the effectiveness of the both the regulations and the programs developed to implement them.

From the inception of the Commercial Fishing Vessel Safety Program the Coast Guard's goal has been to make this industry safer and reduce the number of fatalities and casualties. The Coast Guard's strategy to achieve this goal focuses on public awareness, voluntary dockside examination of vessels, and at sea enforcement.

Since the Commercial Fishing Vessel Safety Regulations became effective September 15, 1991, strong efforts have been made to promote and educate the industry regarding the application of, as well as the need for, the regulations. By mid to late Fiscal Year (FY) 1992, 45 new personnel were hired specifically to implement the Voluntary Dockside Examination program. 3,632 commercial fishing vessels were visited and examined dockside for compliance with the regulations. Of these, 1,661 were issued decals indicating full compliance with the rules. Additionally, educational materials were distributed through various venues including trade magazines, commercial fishing expositions, and conventions.

At sea enforcement for FY 1992 included 7,673 commercial fishing vessel boardings resulting in 943 violations of the Commercial Fishing Vessel Safety Regulations, and 177 terminations of fishing for vessels found operating with especially hazardous conditions aboard.

With respect to the regulations for safety equipment, design and operations onboard commercial fishing vessels, the regulations became effective in September of 1991. Some equipment is phased in over time. For example, immersion suits were not required until Nov. 15, 1991 and survival craft are phased in over four years. The effectiveness of these regulations will be measured utilizing our accident reporting system. Using data from the accident reporting system, we will be able to offer a snapshot picture of the effectiveness of these new regulations towards the end of this year.

We can directly attribute many "successes" to the carriage of the new safety equipment required by these regulations. For example, 31 lives were saved due to the carriage of the Emergency Position Indicating Radio Beacons (EPIRBs) alone. Other testimonials to the effectiveness of these regulations include the lives saved in the F/V Majestic, F/V Duchess, and F/V Little Frank casualties. In each case newly required safety equipment such as immersion suits, survival craft, distress signals, and EPIRBs directly contributed to the crewmembers' survival.

(070) SENATOR LAUTENBERG: Please provide a summary of data indicating all fishing vessel casualties involving deaths for the last three calendar years. What does this data indicate, if anything?

ADMIRAL KIME: The following is a summary of deaths resulting from fishing vessel casualties and personnel casualties on fishing vessels.

The data does not show any significant change in the number of casualties involving deaths or in the number of deaths per year.

	1988	1989	1990	1991	1992
Casualties with one or more deaths	37	37	22	*	43
Number of deaths	65	59	48	*	61

Due to a change in computer hardware and software, the data for 1991 is not yet complete. The numbers for 1988 and 1989 are different from previously published statistics. This reflects refinements in software and a manual check of the data that indicated a number of deaths were previously double counted in the data base. In addition, there are cases from 1992 that are still under investigation. It is the Coast Guard's policy not to publish statistics from open cases.

(071) SENATOR LAUTENBERG: How many "no-fault, no-cost, non-adversarial" dockside examinations have been conducted in the last year? Of these exams, how many have resulted in the issuance of a "decal" indicating the compliance of the vessel with all applicable safety standards and guidance?

ADMIRAL KIME: There were 3,632 voluntary dockside examinations of commercial fishing vessels in FY92. Of these, 1,661 (46%) were issued decals indicating compliance with all applicable Federal regulations.

(072) SENATOR LAUTENBERG: Of all the fishing vessel casualties involving deaths in the last year, how many of the involved vessels had received a dockside examination prior to the casualty? Were any vessels that had received a safety decal involved in a casualty? Can this be determined? If not, why not?

ADMIRAL KIME: In FY92, 3,632 voluntary dockside examinations of fishing vessels were conducted by Coast Guard marine safety personnel, law enforcement personnel, and members of the Coast Guard Auxiliary. All of the 703 examinations conducted by marine safety personnel were reported in the Marine Safety Information System (MSIS). However, because MSIS is not currently available to law enforcement and auxiliary personnel, they reported the results of the remaining 2,929 examinations on separate records to each district office. Therefore, it would be necessary to gather these 2,929 records and manually compare them to our casualty data to provide a complete answer.

Of the 703 fishing vessels with dockside examination records in MSIS, 60 vessels had casualties. Thirty of those 60 vessels had a decal. The two deaths recorded, as a result of these casualties, were on vessels that did not have a decal. One death occurred when a fishing vessel under tow capsized and a crewman was trapped inside. The capsized vessel had suffered a steering casualty and was being towed by another fishing vessel, which had a decal. The other death occurred when a crewman fell overboard and drowned.

We record casualty data for the following incidents: collisions, foundering, sinking, capsizing, groundings, loss of propulsion, primary steering, or control systems, occurrences which adversely affect a vessel's seaworthiness, including fires, explosions, flooding, and damage to lifesaving, fire fighting, power generating, and bilge pumping equipment and systems, loss of life and serious injuries, and other occurrences resulting in more than $25,000 property damage. Currently we are evaluating a revised configuration of the MSIS data base to more effectively identify and capture data on voluntary dockside examinations by marine safety and other personnel.

(073) SENATOR LAUTENBERG: Is a post-casualty dockside examination mandatory for all fishing vessels fortunate enough to survive a reportable marine casualty?

ADMIRAL KIME: No, the Coast Guard does not have a program that requires a post casualty dockside examination of a vessel that has been involved in a reportable marine casualty. However, an examination of the vessel may be conducted in conjunction with a marine casualty investigation, when the investigating officer determines that non-compliance with the regulations may have played a part in the cause of the casualty.

(074) SENATOR LAUTENBERG: In previous testimony, you have pointed out that the education of the commercial fisherman is a very important aspect of your safety program. Recognizing the critical aspect of training and the fact that the effectiveness of educational programs often depends largely on the capability of the educator, what specific fishing vessel safety training programs are established for personnel involved with this program? Who is administering such programs and who is paying for them?

ADMIRAL KIME: At the present time there are no established courses specifically meeting the training criteria of the licensing plan, but there are numerous organizations that are actively involved with commercial fishing vessel safety training, including colleges, fishing vessel owners associations and private training organizations. In addition, there are approximately 130 schools with over 300 Coast Guard approved courses that have shown a strong interest in pursuing training for the fishing vessel operator once legislation is enacted.

Coast Guard will be responsible for administering and overseeing the approved training programs. Upon promulgation of implementing regulations, there will be a seven-year period in which commercial fishing vessel operators will be required to comply with the new provisions and be licensed to perform the duties and functions as operator of commercial fishing industry vessels. This seven-year phase-in period allows for a two-year hiatus for the owners and operators of commercial training institutions to submit applications to the Coast Guard for obtaining approval of their courses. It is envisioned that during the first year (FY-94), three officials at Headquarters will review and approve training courses, training facilities and instructors and conduct on-site visits. Starting the second (FY-95) and third year (FY-96), a total of 18 Coast Guard licensing officials will be required to indoctrinate and educate the public and industry on the regulatory requirements of the program, perform field evaluations for training course approvals, and issue acknowledgments of applications received from fishing vessel operators.

Since the Coast Guard is recommending that private training be accepted in lieu of Coast Guard testing, each applicant will be responsible for the training costs incurred. It is anticipated that the training industry will accommodate the fishing vessel operators by conducting local training at competitive prices.

(075) SENATOR LAUTENBERG: Please describe what measures of effectiveness have been developed for each critical element of the Commercial Fishing Vessel Safety Act (CFVSA). What improvements, if any, have been observed through these measures to date? What results have you identified as goals for future years?

ADMIRAL KIME: There are five critical elements contained in the CFVSA. They include: publishing regulations for safety equipment, design and operations on board commercial fishing vessels, establishment of the Commercial Fishing Industry Vessel Advisory Committee, submittal of a licensing plan, and Coast Guard recommendations on inspection of commercial fishing industry vessels.

The regulations for safety equipment, design and operations on board commercial fishing vessels became effective in September of 1991. Some equipment is phased in over time. For example, immersion suits were not required until Nov. 15, 1991 and survival craft are phased in over four years. The effectiveness of these regulations will be measured utilizing our accident reporting system. Using data from the accident reporting system, we will be able to offer a snapshot picture of the effectiveness of these new regulations towards the end of this year. Trend analysis, however, will take longer, perhaps 4 to 5 years. If licensing or inspection is implemented, their effectiveness will also be measured through the casualty reporting system.

A measure of effectiveness of the Commercial Fishing Industry Vessel Advisory Committee is the number of recommendations it has made to the Coast Guard vs. the number adopted by the Coast Guard. Over 120 motions have been passed by the Committee over the past four years and more than 75% have been adopted by the Coast Guard. The vast majority of these motions directly affected the final text of the regulations making them more practical, thereby enhancing compliance.

The last two elements, licensing and inspection, are proposals which will require legislative authority to implement. In both cases, reports have been submitted to Congress as mandated by the CFVSA, and in the case of the licensing plan, legislation was forwarded to Congress as part of the Marine Safety Act of 1993. Congressional action pends on both issues.

Although it is too early to accurately measure the effectiveness of the safety regulations, we have seen evidence of positive effects. This information comes to us in the form of search and rescue reports. In case after case we read "...crewmembers wearing survival suits, all recovered alive", or, "crewmembers found in liferaft, everyone recovered." These are but two examples of equipment now required by the CFVSA and the effectiveness of that safety equipment.

All five critical elements of the CFVSA will enhance commercial fishing vessel safety. It is difficult to quantify their individual or cumulative effect. The fishing industry is an inherently dangerous one. The overall goal is to significantly reduce commercial fishing vessel casualties, personal injuries and resultant fatalities from the levels existing before the CFVSA.

NTSB RECOMMENDATIONS

(076) SENATOR LAUTENBERG: Please provide a current listing of all National Transportation Safety Board Recommendations to the Coast Guard which are "open", including those that are not concurred with by the Coast Guard as well as those that are concurred with but have yet to be implemented.

ADMIRAL KIME: There are 79 current safety recommendations issued since January 1, 1987 that fall into this category. The recommendations are:

1. Recommendation M-93-026: Propose to the International Maritime Organization that appropriate safety standards be developed to ensure the safety of disabled people aboard passenger vessels during an emergency.
2. Recommendation M-93-025: Propose to the International Maritime Organization a requirement that all passengers boarding vessels at intermediate ports during a voyage receive comprehensive safety and emergency instructions by qualified crewmembers soon after boarding.
3. Recommendation M-93-024: Provide guidelines to boarding officers investigating marine accidents about informing marine employers of their responsibility to conduct toxicological testing and on providing assistance when necessary (such as providing sampling kits and making arrangements for testing with local approved laboratories).
4. Recommendation M-93-023: Widely publicize the particulars of this accident concerning the large squat for ships operating at high speeds in shallow waters.
5. Recommendation M-93-022: Amend the Navigation Safety Regulations (33 CFR 164.35(g)) to require that squat characteristics be included with the maneuvering information on vessels, as recommended by IMO Resolution A.601(15), for deep-draft, high-speed vessels over 1,600 gross tons.
6. Recommendation M-93-021: Propose that the International Maritime Organization incorporate IMO Resolution A.601(15), "Provision and Display of Maneuvering Information on Board Ships," into the SOLAS Convention.

7. Recommendation M-93-020: Require that all applicants for an original or the renewal of a Federal pilot and deck officer license for vessels of more than 1,600 gross tons successfully complete a course in bridge resource management.

8. Recommendation M-93-019: Propose to the International Maritime Organization that the masters, deck officers, and pilots of ocean-going ships be required to successfully complete initial and recurrent training in bridge resource management.

9. Recommendation M-93-018: Propose to the International Maritime Organization that standards and curricula be developed for bridge resource management training for masters, deck officers, and pilots of ocean-going ships.

10. Recommendation M-93-017: Establish standards and curricula for bridge resource management training for Federal pilots licensed by the U.S. Coast Guard.

11. Recommendation M-93-014: Develop, in cooperation with the National Association of State Boating Law Administrators, guidelines that would be used by the States to implement minimum recreational boating safety standards to reduce the number and severity of accidents; consider requirements such as mandatory use of personal flotation devices for children, demonstration of operator knowledge of safe boating rules and skills, and operator licensing.

12. Recommendation M-93-013: Use Coast Guard funding authority to increase personal flotation device (PFD) usage by requiring that the memorandum of understanding signed biennially by the States with the Coast Guard outline specifically the States' plans to increase PFD usage. Review annual narratives submitted by the States to determine compliance with proposed plans and activities.

13. Recommendation M-93-012: Develop, in consultation with the National Association of State Boating Law Administrators and the American Academy of Pediatrics, a uniform component of standards that establishes an age at or below which all children should be required by all States to wear personal flotation devices while on recreational boats.

14. Recommendation M-93-011: Evaluate the effectiveness of State programs aimed at curbing alcohol use in recreational boating, and use funding to encourage States to use those programs that are most effective.

15. Recommendation M-93-010: Implement a fatal accident reporting system, comparable to the National Highway Traffic Safety Administration's Fatal Accident Reporting System, and develop a three-level report form and corresponding data files that address the accident, the vessel(s), and the occupants. Develop guidelines for submission of the data and standardization of cause codes and develop uniform data entry at the State level.

16. Recommendation M-92-056: Inform your rescue coordination centers, group offices, air stations, and cutters of the circumstances of the SEA KING accident.

17. Recommendation M-92-055: Review and revise policies relating to Coast Guard air and surface units rendering assistance to vessels to ensure that all people remaining on board the vessels are situated so as to ensure their safe exit in the event of an emergency.

18. Recommendation M-92-054: Incorporate into the training of search and rescue (SAR) personnel procedures to ensure the gathering and disseminating of pertinent information by all appropriate SAR personnel to facilitate a thorough assessment of the potential risks to persons involved in a SAR mission.

19. Recommendation M-92-047: Propose to the International Maritime Organization that it require the installation of a sensor that activates audible and visual alarms in the wheelhouse, the engineroom, and the steering gear room, identifying any power unit which does not respond to a rudder command from the wheelhouse controls, on all self-propelled vessels of 10,000 gross tons and over.

20. Recommendation M-92-046: Propose to the International Maritime Organization that it require the installation of a valved pressure gauge to indicate the operating pressure at the hydraulic discharge of each steering gear pump on all self-propelled vessels of 10,000 gross tons and over.

21. Recommendation M-92-045: Propose to the International Maritime Organization that it amend Safety of Life At Sea '74, Chapter V, Regulation 19-2, to require that predeparture steering gear tests include the timing of the rudder movement from 35 degrees on one side to 30 degrees on the other, while operating each steering gear pump individually.

22. Recommendation M-92-044: Propose to the International Maritime Organization that it rescind, for those vessels having steering gear power units where each unit meets the 28 seconds rudder performance standards, Regulation 19-1, that requires the simultaneous operation of all main steering gear pumps where navigation demands special caution.

23. Recommendation M-92-043: Propose to the International Maritime Organization that it amend Safety of Life At Sea '74 to require that cargo and tank ships meet the 28 seconds rudder performance steering standard by each steering power unit as required by Chapter 11-1, Machinery Installations, Regulation 29/6.1.1.

24. Recommendation M-92-042: Require the installation of a valved pressure gauge to indicate the operating pressure at the discharge of each hydraulic steering gear pump on all U.S. self-propelled vessels of 1,600 gross tons and over.

25. Recommendation M-92-041: Amend 33 Code of Federal Regulations Subpart 164.25 to require that predeparture and prearrival steering gear tests include the timing of the rudder movement from 35 degrees on one side to 30 degrees on the other, while operating each steering gear pump individually.

26. Recommendation M-92-040: Amend 33 Code of Federal Regulations, Subpart 164.11(t), Navigation Underway, by rescinding the requirement for U.S. flag vessels operating in U.S. waters to simultaneously operate their main steering gear power units.

27. Recommendation M-92-019: Disseminate to all Coast Guard marine safety units information about the nature and circumstances of this accident so that they can identify similar hazards on other tank vessels.

28. Recommendation M-92-018: Propose that the International Maritime Organization develop a lifeboat retrofit or replacement program for tank vessels built before July 1, 1986, requiring that lifeboats be totally enclosed, have propeller guards, and be launchable from within the craft.

29. Recommendation M-92-017: For tank ships built before July 1, 1986, develop a lifeboat retrofit or replacement program to require that lifeboats be totally enclosed, have propeller guards, and be launchable from within the craft.

30. Recommendation M-92-016: Propose that the International Maritime Organization revise SOLAS '74, as amended, to require that ballast tanks located within the cargo block be included in the Inert Gas System.

31. Recommendation M-92-015: Revise Title 46 Code of Federal Regulations Section 32.53-5, "Inert Gas System Operation", to require that ballast tanks located within the cargo block on tank vessels be included in the Inert Gas System.

32. Recommendation M-92-014: Propose that the International Maritime Organization revise SOLAS '74, as amended, to prohibit the routing of ballast piping through the cargo tanks and cargo piping through the ballast tanks on tank vessels.

33. Recommendation M-92-013: Amend Title 46 Code of Federal Regulations to prohibit the routing of ballast piping through cargo tanks and cargo piping through ballast tanks on tank ships.

34. Recommendation M-92-012: Determine the best location, set standards, and implement requirements for port and starboard fire foam monitors aft of the cargo block on tank vessels.

35. Recommendation M-92-011: Require that the fire control system on each tank vessel have individual controls in the protected fire control room to supply and control water and foam to each fire foam monitor.

36. Recommendation M-92-010: Amend Title 46 Code of Federal Regulations Section 35.30-10, "Cargo tank hatches, ullage holes, and Butterworth plates," to include ballast tanks, cofferdams, and voids in addition to cargo tanks.

37. Recommendation M-92-009: Require guidance for crewmembers to use before ventilating or entering cargo tanks, ballast tanks, cofferdams, and voids immediately adjacent to or within the cargo block on tank vessels.

38. Recommendation M-91-004: Require tank ships mooring and unmooring at offshore oil transfer facilities located within the territorial sea of the United States to have on board a shallow water fathometer that has readout capability on the navigation bridge.

39. Recommendation M-91-003: Require that shipmasters and mooring masters conduct a prearrival and predeparture conference to discuss the prevailing wind and sea conditions, intended maneuvers, manner and timing for transferring the conn, and any other matters relevant to the safety of operations before mooring and unmooring from offshore oil transfer facilities located within the territorial sea of the United States.

40. Recommendation M-91-002: Require all tank ships mooring or unmooring at offshore oil transfer facilities located off the coasts of Oahu and California to be under the navigational control of a Federal pilot.

41. Recommendation M-92-001: Promulgate regulations for tank vessel operations at offshore oil transfer facilities located within the territorial sea similar to those presently applied to deepwater ports.

42. Recommendation M-91-036: Disseminate the information contained in this accident report to the marine industry by means of Coast Guard publications and notices, emphasizing the requirements of 33 CFR Part 164.

43. Recommendation M-91-034: Include in the Coast Guard inspection instructions for marine oil transfer facilities a requirement that inspectors check the condition of the mooring facilities. The inspection should include a determination of the overall adequacy of the mooring facilities to safely berth vessels of varying lengths.

44. Recommendation M-91-33: Direct the Captain-of-the-Port of Detroit to work with State and local jurisdictions to establish a port contingency plan for the Saginaw River/Bay City port area that includes training and drills for shipboard firefighting.

45. Recommendation M-91-032: Direct the Captain-of-the-Port of Detroit to instruct the Officer-in-Charge of Coast Guard Station Saginaw River to notify in a timely manner area marine bulk oil/hazardous material terminals in the Bay City/Saginaw port area within Coast Guard jurisdiction of impending river traffic so that personnel at the terminals and aboard moored vessels can take appropriate measures to suspend the transfer operations, thereby enhancing safety.

46. Recommendation M-91-031: Amend 33 CFR Part 154, Oil Pollution Prevention Regulations for Marine Oil Transfer Facilities, to require that the Facility Operating Manual include procedures for stopping the transfer of product between a vessel and the terminal when a danger of surging exists from passing vessels.

47. Recommendation M-91-028: Amend 33 CFR 164.11(k) to require that masters and pilots discuss and agree beforehand to the essential features and relevant checkpoints of maneuvers they expect to undertake.

48. Recommendation M-91-127: Install radar and closed-circuit television for the area between the Bayport Channel and Red Fish Bar in order to complete surveillance coverage of the Houston Ship Channel.

49. Recommendation M-91-026: Conduct a study to identify procedures to improve navigation safety in the Houston Ship Channel between Bolivar Roads and the Houston Turning Basin including the feasibility of procedures to prevent large, deep-draft vessels such as the HELLSPONT FAITH from meeting or overtaking other large deep-draft vessels in the 400-foot wide channel, except in designated widening areas.

50. Recommendation M-91-014: Limit the number of offshore workers transported on liftboats between United States continental ports and offshore worksites to the minimum number required to maintain the contractor equipment carried on the vessel.

51. Recommendation M-91-013: Require that liftboats have on board a severe weather action plan that is tailored to the operating characteristics and limitations of the vessel.

52. Recommendation M-91-011: Amend 46 CFR 156.25-1(d) to require that before getting underway the master or other licensed crewmember present a verbal passenger safety briefing to all passengers that includes all of the subjects listed in 46 CFR 185.25-1(d)(1) through (4) and an advisory that during rough water or other hazardous conditions passengers will be required to don life preservers.

53. Recommendation M-90-039: Initiate procedures to collect information on ice conditions in Valdez Arm so that all participating vessels receive accurate and timely ice reports before departing port and so that all supervisory personnel associated with the Valdez Traffic System are cognizant of ice conditions in Valdez Arm.

54. Recommendation M-89-140: Seek legislative authority to investigate accidents in international waters involving any passenger vessel regularly operating from U.S. ports and embarking U.S. passengers, including but not limited to such accidents as groundings; collisions; loss of main propulsion or steering; or loss resulting in a reduction of maneuvering capabilities; or an occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including fire, flooding, or failure of or damage to fixed fire-extinguishing systems, lifesaving equipment, or auxiliary power generating equipment.

55. Recommendation M-89-139: Seek legislative authority to require any passenger vessel regularly operating from U.S. ports and embarking U.S. passengers to report to the U.S. Coast Guard any accident in international waters, including but not limited to such accidents as groundings; collisions; loss of main propulsion or steering; or loss resulting in a reduction of maneuvering capabilities; or an occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including fire, flooding, or failure of or damage to fixed fire-extinguishing systems, lifesaving equipment, or auxiliary power generating equipment.

56. Recommendation M-89-133: Propose to the International Maritime Organization that passenger vessels carrying more than 500 passengers and crew on international routes establish a full-time professional firefighter position.

57. Recommendation M-89-132: Propose to the International Maritime Organization that crewmembers with firefighting responsibilities on board passenger vessels be certificated by the flag Administration to have completed a practical firefighting training course.

58. Recommendation M-89-129: Seek legislative authority to require that passenger vessels, as a condition for operating from U.S. ports and embarking U.S. passengers, have safety fire protection improvements including but not limited to a crew composition in each passenger vessel department such that at least 75 percent of the crew responsible for emergency, firefighting, and lifesaving service be able to understand and communicate in a common language with the officers and to understand and communicate in English with passengers.

59. Recommendation M-89-123: Examine and verify that all foreign flag passenger vessels, regardless of gross tonnage, operating from U.S. ports and embarking U.S. passengers meet all SOLAS requirements.

60. Recommendation M-89-119: Require all domestic passenger vessels that operate on all routes other than rivers be equipped with an operating electronic position-fixing device such as loran or a satellite receiver.

61. Recommendation M-89-118: Require all domestic passenger vessels that operate on all routes other than rivers be equipped with an operating fathometer.

62. Recommendation M-89-115: Amend 46 CFR Part 16 to require annual drug and alcohol detection training for all employees who are required to monitor fitness for duty of other marine employees in safety-sensitive positions.

63. Recommendation M-89-013: Require that all U.S. manned tank barges and tank ships carrying Grade E cargoes and all foreign manned tank barges and tank ships while in U.S. waters carrying Grade A, B, C, D, or E cargo be equipped with a combustible gas indicator device suitable for determining the presence of explosive concentrations of the cargo carried.

64. Recommendation M-89-111: Establish and administer examinations to test the competency of masters operating domestic small passenger vessels carrying six passengers for hire. Areas to be tested are: damage stability, firefighting systems equipment and regulations, emergency steering, emergency procedures prior to and after grounding, and electronic navigation including radar.

65. Recommendation M-89-095: Revise the capacity standards for survival craft required on board vessels required to carry immersion suits for all crewmembers to account for the wearing of immersion suits by all persons while in the survival craft.

66. Recommendation M-89-043: Seek legislative authority to regulate and directly survey the safety of foreign passenger vessels as a condition for operating from U.S. ports.

67. Recommendation M-89-017: Inform U.S. and foreign owners and operators of the Coast Guard requirement that when in U.S. waters, the masters of tank vessels with installed inert gas systems are to operate the systems as necessary to maintain an inert atmosphere in cargo tanks when carrying petroleum cargoes, unless the tanks are gas free.

68. Recommendation M-89-016: Revise the Marine Safety Manual to state that masters are to operate installed inert gas systems when carrying Grade E products.

69. Recommendation M-89-013: Require that all U.S. manned tank barges and tank ships carrying Grade E cargoes and all foreign manned tank barges and tank ships while in U.S. waters carrying Grade A, B, C, D, or E cargo be equipped with a combustible gas indicator device suitable for determining the presence of explosive concentrations of the cargo carried.

70. Recommendation M-89-012: Require the masters of U.S. and foreign manned tank barges and tank ships carrying Grade E cargoes to certify to the cognizant captain of the port that the ship cargo tanks do not contain explosive vapors before sampling or measuring cargo in U.S. waters.

71. Recommendation M-88-044: Establish watch and duty time limitations for crewmembers on board ferries and other inspected passenger vessels.

72. Recommendation M-88-041: Modify the training program of coxswains of small Coast Guard vessels to provide more emphasis on Coast Guard district policies and procedures related to towing and rendering assistance to disabled vessels.

73. Recommendation M-87-070: Establish a testing and certification program for persons in charge of oil or hazardous materials transfer operations at U.S. waterfront facilities.

74. Recommendation M-87-064: Seek legislative authority to require that all uninspected commercial fishing vessels be certified and periodically inspected by the Coast Guard or its recognized representative to ensure that the vessels meet all applicable Federal safety standards.

75. Recommendation M-87-052: Seek legislative authority to require uninspected commercial fishing vessel captains/owners to provide safety training to all crewmembers.

76. Recommendation M-87-051: Establish minimum safety training standards for all commercial fishermen, commensurate with their responsibilities, for all types of uninspected commercial fishing vessels.

77. Recommendation M-87-036: Amend the U.S. Coast Guard regulations regarding the source of power for the second fire pump on vessels to include protection of the power source from an explosion in the space containing the main power source.

78. Recommendation M-87-035: Amend the U.S. Coast Guard regulations regarding the location of an independent emergency power source to include protection from an explosion in the space containing the main power source.

79. Recommendation M-87-032: Implement for all U.S. vessels the second set of amendments to the 1974 Safety of Life at Sea Convention regarding improved lifesaving equipment which became effective internationally on July 1, 1986.

(077) SENATOR LAUTENBERG: Do you consider the Coast Guard's recent record on NTSB recommendations satisfactory?

ADMIRAL KIME: Yes. We carefully review each recommendation to determine whether or not to implement the recommended action. In the majority of cases, we agree with the recommendation and take action to satisfy it. Of course, there are times when we differ with NTSB and do not implement their recommendation. In these cases we may take some other similar action to achieve the same results. The bottom line; the NTSB has classified more than 70% of the Coast Guard's actions and responses to recommendations as acceptable.

BACKLOGGED REGULATORY PROCESS

(078) SENATOR LAUTENBERG: The Semi-annual Regulatory Agenda printed November 3rd, 1992 lists numerous projects in excess of five years old and several more than ten years old. Why are so many of these projects, some of which are designated "agency priority" not yet complete? If the problem is one of workload, where does the logjam exist? Are all of these projects still necessary or has their need been superseded? What efforts will you take to clear this backlog?

ADMIRAL KIME: The Secretary of Transportation has investigated the delays inherent in the rulemaking process and just recently completed the "Inspector General's Report on Rulemaking." The report identifies the following contributors to the regulatory logjam:

- Outdated policies and procedures for review of regulations.
- Shortage of rulemaking staff.
- Lack of expertise in drafting regulations.
- Cumbersome review and concurrence procedure.
- Lack of authority and accountability to set and enforce deadlines.
- Volume of petitions received.
- Unrealistic Congressional deadlines.

The projects listed on the Semi-annual Regulatory Agenda are still considered necessary due to valid programic concerns, and have not been superseded. The report also contains several recommendations and corrective actions that may improve the rulemaking process:

- Issuance of a Secretarial policy statement making rulemaking a priority.
- Establish a task force to revise DOT regulatory review procedures.
- Provide mandatory training on writing regulations.
- Delegate to the Operating Administrations authority to approve nonsignificant rules.
- Establish a mechanism to set and enforce compliance with review deadlines and mediate nonconcurrence.
- Eliminate requirements to publish denials of petitions in the Federal Register.
- Create a relationship with Congress to minimize unrealistic deadlines and show DOT's willingness to comply with deadlines.

The Coast Guard is presently examining these recommendations, looking for effective forms of implementation.

[CLERK'S NOTE.--Due to its size, the document entitled, ''Inspector General's Report on Rulemaking,'' does not appear in the hearing but is available for review in the subcommittee files.]

(079) SENATOR LAUTENBERG: Please provide an update on the status of each of the following rulemakings including an explanation for the delay and what deadlines have been established by you and/or your program managers for the furtherance of these rulemakings:

ADMIRAL KIME: The following docket lists the requested rulemakings and their current phase of completion.

Docket Program Consultation-Regulations

84-060 TITLE OF PROJECT: Licensing of Pilots; Manning of Vessels - Pilots

MVP PM: Hartke, Jack 267-0214 PC: Grasselli

Priority: A SIGNIFICANT RIN: 2115-AB67

SUMMARY: Proposes to Define Coastwise Seagoing Vessel and Define Not on the High Seas. Resolve Confusion as to When a Licensed Pilot is required

last
PUBLICATION: FR PHASE: unpublished DATE:
PUBLISHING HISTORY: 06/24/85 NPRM 50FR26117; 09/23/85 EXT 50FR38557; 11/18/85 MEETING 50FR47496;06/06/88 SNPRM 53FR20654; 08/11/89 W/DRAW
current
STATUS: Clearance DOT/OMB PHASE: INT.FINAL LAST UPDATE: 6/21/93

COMMENTS: Clearances: G-MVP 11/10/92; G-MVI 11/12/92; PC 4/6/93; G-LRA 4/6/93; G-N 4/6/93; G-M 5/18/93; G-L 5/20/93. Action Memo clearances G-MVP 5/24/93; G-LRA 5/26; G-L 5/26/93; G-M 6/4 G-CCS 6/8; G-C 6/14;

ORIGINAL SCHEDULE: NPRM 10/01/84

AGENDA SCHEDULE: OCT 92 2SNPRM; APR 93 INT FINAL 4/93
Interagency Coord: No

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87-031 TITLE OF PROJECT: Posting Requirements on Inspected Vessels

G-MVI-2 PM: Penn, Allen 267-1185 PC: To be assigned

Priority: B Non-significant RIN: 2115-AC68

SUMMARY: Recent IMO amendments to SOLAS will allow reduced posting when ratified and legislation passed. G-MVI ICB Project (broader than this docket & related 87-031a/044. Relates to older OMB requests to agys to reduce Paperwork

last
PUBLICATION: 52 FR 31787 PHASE: ANPRM DATE: 8/24/87
PUBLISHING HISTORY: 8/24/87 ANPRM 52FR31787;

current
STATUS: Inactive PHASE: NPRM LAST UPDATE: 12/23/92

COMMENTS: G-MVI reviewing rulemaking priorities 10/91 and PM to notify PC re project status after that review. PM states much of project may have been accomplished in previous related actions. Mid 92 timetable for action.

ORIGINAL SCHEDULE:

AGENDA SCHEDULE: OCT 92 2ANPRM 1/93; APR 93 NPRM 6/93
Interagency Coord: No

Docket Program Consultation-Regulations

78-174 TITLE OF PROJECT: Hybrid PFD's; Establishment of Approval Requirements

G-MVI-3 PM: Wehr, Sam 7-1444 PC: Hetzel

Priority: A Non-significant RIN: 2115-AA29

SUMMARY: Standards, Tests, and Procedures for Approving Inflatable Life Jackets and Hybrid Inflatable PFD's.

last
PUBLICATION: 50 FR 33923 PHASE: Interim F.R. DATE: 8/22/85
PUBLISHING HISTORY: 3/15/79 ANPRM 44FR15933; 5/29/85 NPRM 50FR21862; 6/18/85 CORRECTIONS 50FR25274; 8/22/85 INT.F.R. 50FR33923
current
STATUS: Review in LRA PHASE: SNPRM LAST UPDATE: 6/17/93

COMMENTS: Project Split; see 78-174b; IFR specs for Hybrid PFD's published 8/22/85.

ORIGINAL SCHEDULE: unk

AGENDA SCHEDULE: OCT 92 SNPRM 11/92; APR 93 UNDET.
Interagency Coord: No

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82-054 TITLE OF PROJECT: Aids to Navigation on the Outer Continental Shelf

G-NSR-1 PM: Mosher, Charles 7-1973 PC: Boutrous

Priority: C Non-significant RIN: 2115-AA92

SUMMARY: Outer Continental Shelf ATONS marking Artificial Islands

last
PUBLICATION: FR PHASE: unpublished DATE:
PUBLISHING HISTORY:
current
STATUS: Revise at Program PHASE: NPRM LAST UPDATE: 6/29/90

COMMENTS: PM plans to initiate withdrawal.

ORIGINAL SCHEDULE: NPRM 1/1/83

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 NPRM 12/93
Interagency Coord: No

Docket Program Consultation-Regulations

82-058 TITLE OF PROJECT: Safety Standards for New Self-Propelled Vessels Carrying Bulk Gas

G-MTH-1 PM: Felleisen, Tom 267-1577 PC: To be assigned

Priority: B Non-significant RIN: 2115-AA95

SUMMARY: Updates regs re self-propelled vessels carriage of liquefied gases. Incorporates 3 sets of amendments to International Maritime Organization (IMO) Code for the Construction & Equipment of Ships Carrying Liquefied Gases in b

last
PUBLICATION: FR PHASE: unpublished DATE:
PUBLISHING HISTORY:

current
STATUS: On Hold PHASE: NPRM LAST UPDATE: 9/17/90

COMMENTS: Suspended because of OPA projects. PM following up on language conflict re breathing apparatus in CGD 86-036. (File references 87-069 & 84-085, also). PC (BARBER) cleared 9/17/90. PM states also overlaps with Tankerman rulemaking. NPRM has cleared MTH/MTH-1. PM still revising 2/92.

ORIGINAL SCHEDULE: NPRM 10/01/83

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 NPRM 4/93
Interagency Coord: Yes MARAD

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83-026 TITLE OF PROJECT: Fire Protection

MTH-4 PM: Kupferman, Marcia 7-2997 PC: Grasselli

Priority: B Non-significant RIN: 2115-AB36

SUMMARY: Incorporates SOLAS Amendments and current technology on Fire Protection.

last
PUBLICATION: 49 FR 38672 PHASE: ANPRM DATE: 10/1/84
PUBLISHING HISTORY: 10/1/84 ANPRM 49FR38672;

current
STATUS: Revise at Program PHASE: W/DRAW LAST UPDATE: 10/27/92

COMMENTS: 10/27/92 G-MTH sent memo recommending that project be terminated. A withdrawal notice will have to be done. Awaiting further action from G-MTH.

ORIGINAL SCHEDULE: UNKNOWN 09/01/84

AGENDA SCHEDULE: OCT 92 NPRM 10/92; APR 93 NPRM 4/93
Interagency Coord: Yes MARAD

Docket Program Consultation-Regulations

85-205 TITLE OF PROJECT: Revise Inflatable Liferaft Approval Requirements in Accordance with SOLAS 74/83

G-MVI-3 PM: Heinz, Kurt 267-1444 PC: Cahill

Priority: A Non-significant RIN: 2115-AC51

SUMMARY: Revises performance requirements for inflatable liferafts to meet requriements of 1983 Amendments to SOLAS 74.

last
PUBLICATION: FR PHASE: Correction DATE:
PUBLISHING HISTORY:

current
STATUS: Revise at Program PHASE: NPRM LAST UPDATE: 4/26/93

COMMENTS: Will be master liferaft project. NPRM involves many complex issues. Primary issue is manufacturer control over CG inspection of servicing facilities. Clearances: PC 11/8/91; G-MVI 11/26/91; 12/2/91-4/26/93 G-LRA reviewed and returned to PM for revisions.

ORIGINAL SCHEDULE: NPRM 4/1/87 FINAL RULE 12/31/88

AGENDA SCHEDULE: OCT 92 NPRM 10/92; APR 93 NPRM 4/93
Interagency Coord: No

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86-013 TITLE OF PROJECT: Load Lines

G-MTH-3 PM: Dabney, LCDR Keith 267-2988 PC: Barber

Priority: B Non-significant RIN: 2115-AC37

SUMMARY: Restructure 46 CFR Subchapter E to accommodate new legislation, correct errors and deficiencies, and address 3rd party delegations.

last
PUBLICATION: 51 FR 46972 PHASE: Notice DATE: 12/29/86
PUBLISHING HISTORY: 12/29/86 NOTICE 51FR46972

current
STATUS: Review in LRA PHASE: NPRM LAST UPDATE: 5/25/93

COMMENTS: A notice of USCG policy.

ORIGINAL SCHEDULE: ANPRM 5/1/86 NPRM 3/5/88 FINAL 5/5/89

AGENDA SCHEDULE: OCT 92 NPRM 10/92; APR 93
Interagency Coord: No

Docket Program Consultation-Regulations

82-004 TITLE OF PROJECT: Offshore Supply Vessels (82-004 and 86-074)

G-MVI-4 PM: Hartley, LCDR Scott 267-2307 PC: Barber

Priority: B SIGNIFICANT/MAJOR RIN: 2115-AA77

SUMMARY: Standards, operating requirements, and inspection procedures for new offshore supply vessels; leaving existing OSV's the option to be certificated under the subchapter if they meet requirements

last
PUBLICATION: FR PHASE: Correction DATE:
PUBLISHING HISTORY: 2/14/83 ANPRM 48FR6636; 6/9/83 EXTENSION 48FR26631; 5/9/89 NPRM 54FR20006; 8/31/89 EXT. & P.H. 54FR36040;
current
STATUS: Program Clearance PHASE: FINAL RULE LAST UPDATE: 6/10/93

COMMENTS: 86-074 combined with this project. MTH will request change to A priority. To follow F/V final and SNPRM. This is 176 pages long but moving along. Clearances: PC (Pat) 3/26/93;

ORIGINAL SCHEDULE: NPRM 10/1/82

AGENDA SCHEDULE: OCT 92 FINAL 10/92; APR 93 FINAL 6/93
Interagency Coord: No

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84-069 TITLE OF PROJECT: Lifesaving Equipment - Implementation of 1983 Amendments to SOLAS 1974

G-MVI-3 PM: Berringer, Bryan 267-1444 PC: To be assigned

Priority: A Non-significant RIN: 2115-AB72

SUMMARY: Consolidates lifesaving equipment regs except offshore & T-boats (subchapter L & IA, T) into new Subchapter W and incorporates SOLAS amendments.

last
PUBLICATION: 54 FR 41124 PHASE: Correction DATE: 10/5/89
PUBLISHING HISTORY: 12/31/84 ANPRM 49FR50745; 04/21/89 NPRM 54FR16198; 10/5/89 HEARING 54FR41124;
current
STATUS: Revise at Program PHASE: SNPRM LAST UPDATE: 6/24/92

COMMENTS: Hearing held Fall 1989. NPRM comment period closed 01/03/90. In light of responses, program re-evaluating organization of rulemaking and analyzing comments received. Since NPRM more than two and one-half years ago, PC suggests SNPRM. PM expects draft final rule by 3/92. LRA replied to OST re this rulemaking 11/91.

ORIGINAL SCHEDULE: FINAL RULE 07/01/86

AGENDA SCHEDULE: OCT 92 FINAL 10/92; APR 93 FINAL 11/93
Interagency Coord: No

Docket Program Consultation-Regulations

87-069 TITLE OF PROJECT: Marine Transport of Bulk Solid Hazardous Materials

G-MTH-1 PM: Thompson, Frank 267-1217 PC: Boutrous

Priority: B Non-significant RIN: 2115-AD02

SUMMARY: To revise 46 CFR 148 by incorporating permit requirements, to include requirement of IMO Code of Safe Practice for Solid Bulk Cargoes and to eliminate conflicts in the existing regulations.

last
PUBLICATION: 54 FR 18308 PHASE: ANPRM DATE: 4/28/89
PUBLISHING HISTORY: 4/28/89 ANPRM 54FR18308

current
STATUS: Review in LRA PHASE: NPRM LAST UPDATE: 6/14/93

COMMENTS: NPRM was in clearance, however superceding events have required program to draft additional language and change certain existing language in the NPRM.

ORIGINAL SCHEDULE: ANPRM 10/01/87 NPRM 6/01/88 FINAL RULE 12/01/88

AGENDA SCHEDULE: OCT 92 NPRM 1/93; APR 93 NPRM 4/93
Interagency Coord: No

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87-087 TITLE OF PROJECT: Regattas and Marine Parades

G-NAB PM: Perry, Carlton 7-0979 PC: Hetzel

Priority: C Non-significant RIN: 2115-AC84

SUMMARY: Provide Coast Guard a reasonable amount of time to verify details by issuing notices and taking timely action on applications

last
PUBLICATION: 53 FR 3221 PHASE: NPRM DATE: 2/4/88
PUBLISHING HISTORY: 2/4/88 NPRM 53FR3221

current
STATUS: Revise at Program PHASE: FINAL RULE LAST UPDATE: 6/24/92

COMMENTS: PM Drafting Workplan to revise and expand project

ORIGINAL SCHEDULE: NPRM 12/1/87

AGENDA SCHEDULE: OCT 92 SNPRM 10/92; APR 93 SNPRM 10/93
Interagency Coord: No

74-284 TITLE OF PROJECT: Fixed Fire-Ext. Systems on Uninspected Vessels

G-MVI-3 PM: Wahle, Klaus 267-1444 PC: Murray

Priority: B Non-significant RIN: 2115-AA08

SUMMARY: Standards, tests, and procedures for approving optional fixed fire extinguishing systems on Subchapter C vessels

last
PUBLICATION: FR PHASE: unpublished DATE:
PUBLISHING HISTORY: 4/19/82 NPRM 4716648; 1/9/91 SNPRM 56FR829; 3/27/91 COMMENTS 56FR12697
current
STATUS: Revise at Program PHASE: SNPRM LAST UPDATE: 5/28/91

COMMENTS: Comment period 1/9 - 28 May 91. Closed.

ORIGINAL SCHEDULE: NPRM 2/1/82; FINAL 3/1/83

AGENDA SCHEDULE: APR 93 FINAL 4/93; OCT 93
Interagency Coord: No

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81-059a TITLE OF PROJECT: Licensing of Officers and Operators for Mobile Offshore Drilling Units

G-MVP-3 PM: Eulitt, Paul 7-0224 PC: Grasselli

Priority: A Non-significant RIN: 2115-AB91

SUMMARY: Creates new classification of licenses; Estabs manning requirements for those vessels.

last
PUBLICATION: 55 FR 14792 PHASE: Interim F.R. DATE: 4/18/90
PUBLISHING HISTORY: 10/29/81 ANPRM 46FR53624; 8/8/83 NPRM 48FR35920; 11/10/83 EXT48FR51650; 10/24/85 SNPRM 50FR43366; 10/16/87 IFR 52FR386
current
STATUS: Review in LRA PHASE: FINAL RULE LAST UPDATE: 1/15/93

COMMENTS: Comment period closed 18 June 90; Reg effective 1 July 90; Nick Grasselli is now Project Counsel.

ORIGINAL SCHEDULE: ANPRM 9/1/81

AGENDA SCHEDULE: OCT 92; FINAL 11/92; APR 93 FINAL 4/93
Interagency Coord: No

Docket Program Consultation-Regulations

83-043 TITLE OF PROJECT: Incorporation of Amendments to the International Convention for Safety of Life at Sea, 1974

G-MTH-4 PM: Dent, LCDR Roger 267-0178 PC: Boutrous

Priority: B Non-significant RIN: 2115-AB41

SUMMARY: Adoption of SOLAS 74 steering and marine engineering, including minor change to 33 CFR Part 164

last
PUBLICATION: 55 FR 39638 PHASE: NPRM DATE: 9/28/90
PUBLISHING HISTORY: 9/28/90 NPRM 55FR39638

current
STATUS: Revise at Program PHASE: FINAL RULE LAST UPDATE: 6/17/93

COMMENTS: Comment period 9/28 - 12/27/90. First draft of Rule in good shape. BOUTROUS assigned as Project Counsel 6/17

ORIGINAL SCHEDULE: NPRM 2/1/84

AGENDA SCHEDULE: OCT 92 FINAL 11/92; APR 93 UNDET.
Interagency Coord: No

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87-094 TITLE OF PROJECT: Subdivision and Damage Stability of Dry Cargo Vessels

G-MTH-3 PM: Nolan, Guy 267-2988 PC: Boutrous

Priority: B SIGNIFICANT RIN: 2115-AC87

SUMMARY: To require all new foreign and U.S. flag dry cargo vessels to meet a minimum standard of subdivision and damage stability

last
PUBLICATION: 58 FR 17317 PHASE: FINAL RULE DATE: 4/1/93
PUBLISHING HISTORY: 4/6/88 ANPRM 53FR11440; 11/6/89 COMMENTS 54FR46631; 7/22/92 NPRM 57FR32624; 4/1/93 FINAL RULE 58FR17317;
current
STATUS: Completed PHASE: FINAL RULE LAST UPDATE: 4/1/93

COMMENTS: Effective date is 3 May 1993.

ORIGINAL SCHEDULE: ANPRM 04/01/88 NPRM 10/01/88 FINAL 05/12/89

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 FINAL 4/93
Interagency Coord: No

Docket Program Consultation-Regulations

84-068 TITLE OF PROJECT: Personal Flotation Components-New and Revised Specification Regulations

G-MVI-3 PM: Johnson, Ens J. 267-1068 PC: Boutrous

Priority: A Non-significant RIN: 2115-AB70

SUMMARY: Updates specs to reflect current materials and establishes approval procedures.

last
PUBLICATION: 58 FR 29488 PHASE: FINAL RULE DATE: 5/20/93
PUBLISHING HISTORY: 11/13/89 NPRM 54FR47234; 5/20/93 FINAL RULE 58FR29488; 6/9/93 CORRECTION 58FR32416
current
STATUS: Completed PHASE: FINAL RULE LAST UPDATE: 6/10/93

COMMENTS: Effective Date is 16 November 1993. Incorp by Reference Material is approved 16 November 1993. Correction document published 6/9/93 at 58FR32416

ORIGINAL SCHEDULE: NPRM 7/1/85

AGENDA SCHEDULE: APR 92 FINAL 4/92; APR 93 FINAL 4/93
Interagency Coord: No

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85-026 TITLE OF PROJECT: Oil Pollution Prevention Regulations, MARPOL Annex I

G-MEP-3 PM: McEwen, LCDR Mark 267-0421 PC: Murray

Priority: B Non-significant RIN: 2115-AC11

SUMMARY: Implementation of latest Amendments and Interpretations of Annex I of MARPOL 73/78 and correction of minor errors

last
PUBLICATION: FR PHASE: Correction DATE:
PUBLISHING HISTORY: NPRM 2/7/86 NPRM 51FR4768
current
STATUS: Revise at Program PHASE: FINAL RULE LAST UPDATE: 6/24/92

COMMENTS: Problems with Protocol I reporting requirements of MARPOL. Issues memo being reviewed by CH-LRA since July 1987. Issues also being reviewed by PC/PM.

ORIGINAL SCHEDULE: NPRM 5/1/85 FINAL 11/01/85

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 UNDET.
Interagency Coord: No

Docket Program Consultation-Regulations

85-089 TITLE OF PROJECT: Training in the use of Automatic Radar Plotting Aids (ARPA)

G-MVP-6 PM: Eulitt, Paul 7-0224 PC: Hetzel

Priority: C Non-significant RIN: 2115-AB99

SUMMARY: Establish requirements for ARPA training to Implement IMO recommendations

last
PUBLICATION: 55 FR 8155 PHASE: NPRM DATE: 3/7/90
PUBLISHING HISTORY: 10/24/85 COMMENTS 50FR43258 3/7/90 NPRM 55FR8155
current
STATUS: Inactive PHASE: FINAL RULE LAST UPDATE: 7/12/91

COMMENTS: Project needs Reg Eval, Cost Figures, Narrowing to determine if justified.

ORIGINAL SCHEDULE:

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 UNDET.
Interagency Coord: No

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85-089 TITLE OF PROJECT: Training in the use of Automatic Radar Plotting Aids (ARPA)

G-MVP-6 PM: Eulitt, Paul 7-0224 PC: Hetzel

Priority: C Non-significant RIN: 2115-AB99

SUMMARY: Establish requirements for ARPA training to Implement IMO recommendations

last
PUBLICATION: 55 FR 8155 PHASE: NPRM DATE: 3/7/90
PUBLISHING HISTORY: 10/24/85 COMMENTS 50FR43258 3/7/90 NPRM 55FR8155
current
STATUS: Inactive PHASE: FINAL RULE LAST UPDATE: 7/12/91

COMMENTS: Project needs Reg Eval, Cost Figures, Narrowing to determine if justified.

ORIGINAL SCHEDULE:

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 UNDET.
Interagency Coord: No

Docket Program Consultation-Regulations

86-079 TITLE OF PROJECT: Anchorage Regulations

G-NSR-3 PM: Hegy, Margie 267-0415 PC: Murray

Priority: B Non-significant RIN: 2115-AC96

SUMMARY: Will incorporate a statement at the beginning of the anchorage regs informing mariners that local or advances may exist in special anchorage areas. Also, remove the "non-regulatory notes" referring to local ordinances.

last
PUBLICATION: 53 FR 48935 PHASE: SNPRM DATE: 12/5/88
PUBLISHING HISTORY: 3/11/88 NPRM 53FR7949; 12/5/88 SNPRM 53FR48935;

current
STATUS: Revise at Program PHASE: FINAL RULE LAST UPDATE: 2/3/89

COMMENTS:

ORIGINAL SCHEDULE: WPE 12/1/86; NPRM 2/1/87; FINAL 8/1/87

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 UNDET.
Interagency Coord: No

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87-016 TITLE OF PROJECT: Uninspected Vessel Emergency Position Indicating Radio Beacons on Fish Vessel - Carriage of EPIRBS

G-MVI-3 PM: Markle, Bob 267-1444 PC: Grasselli

Priority: A Non-significant RIN: 2115-AC69

SUMMARY: "Coast Guard Authorization Act of 1986" Requires Uninspected Fishing Vessels to Carry Emergency Position Indicating Radio Beacons

last
PUBLICATION: FR PHASE: Correction DATE:
PUBLISHING HISTORY: 9/3/87 NPRM 52FR33448; 10/22/87 EXT. COMM 52FR39546; 8/17/88 FINAL 53FR31004; 4/13/89 COMPLIANCE 54FR14811; 4/1
current
STATUS: Revise at Program PHASE: FINAL RULE LAST UPDATE: 6/24/92

COMMENTS: Suspension of compliance date published 4/19/90 with an effective date of 19 April 1990. To be completed with 87-016a.

ORIGINAL SCHEDULE: WORK PLAN 2/1/87; NPRM 6/1/87; FINAL 3/1/88

AGENDA SCHEDULE: OCT 92 UNDET.; APR 93 FINAL 4/93
Interagency Coord: No

Docket Program Consultation-Regulations

87-016a TITLE OF PROJECT: EPIRBS for Uninspected Vessels

G-MVI-3 PM: Markle, Bob 267-1444 PC: Grasselli

Priority: A Non-significant RIN: 2115-AC69

SUMMARY: Implements EPIRBS on Uninspected Vessel Requirements Act (P.L. 100-540). Would require 406 EPIRBS on uninspected commercial vessels not covered by CFIVS Act implementing regs (88-079).

last
PUBLICATION: 58 FR 13364 PHASE: FINAL RULE DATE: 3/10/93
PUBLISHING HISTORY: 4/29/90 NPRM 55FR14922; 3/10/93 FINAL RULE 58FR13364; 5/11/93 CORRECTION NOTICE 58FR27658;
current
STATUS: Completed PHASE: CORRECT LAST UPDATE: 5/12/93

COMMENTS: Effective date is 26 APRIL 1993. Correction document clearances: G-MVI-3 4/29/93; G-MVI 4/29/93; G-MP 4/29/93; G-M 5/4/93; G-LRA 4/30/93; 5/5 to Federal Register. Correction document published 5/11/93 and is effective as of 5/11/93.

ORIGINAL SCHEDULE:

AGENDA SCHEDULE: APR 92 FINAL 4/1/92; NEXT
Interagency Coord: No

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87-016b TITLE OF PROJECT: EPIRBS and Visual Distress Signals for Uninspected Vessels

G-MVI-3 PM: Markle, Bob 267-1444 PC: Grasselli

Priority: A Non-significant RIN: 2115-AC69

SUMMARY:

last
PUBLICATION: FR PHASE: DATE:
PUBLISHING HISTORY:
current
STATUS: Review in LRA PHASE: SNPRM LAST UPDATE: 12/22/92

COMMENTS:

ORIGINAL SCHEDULE:

AGENDA SCHEDULE: APR 93
Interagency Coord: No

(080) SENATOR LAUTENBERG: What is the average time for review of regulatory projects by the Office of the Chief Counsel?

ADMIRAL KIME: The Office of the Chief Counsel provides assistance and review at all stages of a regulatory project. This includes review of a regulatory workplan or workplan exemption request, a Notice of Proposed Rulemaking (NPRM), and a Final Rule. Projects also may involve review of an Advanced Notice of Proposed Rulemaking (ANPRM), a Supplemental Notice of Proposed Rulemaking (SNPRM), and an Interim Final Rule.

A staff attorney from the Office of the Chief Counsel is assigned as project counsel soon after a program office initiates a regulatory project. The project counsel works closely with the program specialist to identify and satisfy legal requirements early in the drafting process. The project counsel reviews each document to ensure that it is legally sufficient and complies with applicable statutes, Executive Orders, and Department of Transportation policies. The length of time required for this review varies with the complexity of the technical, economic, or policy issues; the priority of the rulemaking; and the availability of resources. Urgent projects that do not present complex issues have been legally reviewed within days, while lengthy, complex projects of lower priority may take weeks or even months. Therefore, it is extremely difficult to determine an "average" time for review.

(081) SENATOR LAUTENBERG: What measures, if any, have been taken to reduce the legal project review time?

ADMIRAL KIME: A staff attorney from the Office of the Chief Counsel is now assigned as project counsel soon after a program office initiates a regulatory project. The project counsel works closely with the program specialist to identify and satisfy legal requirements early in the drafting process. This greatly simplifies the formal legal review of the final product. In addition, we have reduced the clearance level within the Office of the Chief Counsel for legal review of the more routine regulatory projects.

(082) SENATOR LAUTENBERG: What is the personnel strength of the division within the Office of the Chief Counsel responsible for legal review of regulatory projects? What additional responsibilities do these individuals have?

ADMIRAL KIME: The Regulations and Administrative Law Division, Office of the Chief Counsel (G-LRA) has staff positions for nine attorneys and four non-attorneys. These resources are devoted entirely to the various functions of the regulatory process.

In addition to reviewing regulatory projects generated within Coast Guard Headquarters, staff attorneys within the Office of the Chief Counsel review regulations prepared by Coast Guard field offices and significant regulations developed by other DOT modes that may have an impact on the Coast Guard. They review testimony of Coast Guard officials and proposed legislation that may require regulatory action. They assist in the preparation of Federal Register notices that may not involve specific regulatory projects. They also are involved in preparing delegations of authority from the Secretary of Transportation to appropriate Coast Guard officials.

ACTIONS ON IG AUDIT RECOMMENDATIONS

(083) SENATOR LAUTENBERG: In June 1991 the IG reported several problems with the Coast Guard's merchant mariner licensing program. They found that the Coast Guard was not adequately verifying information on the application, including critical elements such as disqualifying physical conditions, prior criminal convictions and prior job experience. The Coast Guard previously reported efforts to implement recommendations of the IG report by Spring 1992. Please provide an update of the status of your efforts, specifically outlining corrective measures you have taken for each of the recommendations of the IG.

ADMIRAL KIME: The IG recommended a new physical form which lists conditions which might disqualify a mariner for a license. The form was drafted; however, the project is pending a comprehensive review of physical standards for mariners. A new form will go into use when the review is completed in Spring 1994.

The IG recommended a provision be put in the Marine Safety Information System to track the results of all fingerprint checks. The provision is part of the Merchant Mariner's License and Document System (MMLD), which is now undergoing field testing. In the interim, the Coast Guard is manually tracking fingerprint cards that are submitted to the FBI.

The IG recommended that licenses not be issued until the results of National Driver Register (NDR) checks are known. We are working on procedures to gain access to NDR. The arrangement currently envisioned will allow the Coast Guard to check the NDR before issuing a license. In preparation for NDR access, the Regional Examination Centers (RECs) now obtain NDR authorization from every applicant.

The IG recommended establishing and enforcing administrative actions for individuals that fail to report prior criminal conviction on their license applications. The RECs are administratively voiding licenses in such cases.

The IG recommended making record checks when licenses are renewed. As a result of OPA 90, a regulation change has been initiated which will require that a percentage of license renewals selected on a random basis undergo criminal record checks. The Coast Guard believes that random checks will reinforce the integrity of the renewal process without creating excessive delay for most applicants.

The IG recommended establishing a system to selectively verify information reported by applicants. RECs are requiring applicants to provide supporting evidence for qualifying experience obtained aboard pleasure vessels, the type of service most easily falsified. When the MMLD is on line, the RECs will have direct access to mariners' sea service records.

FOREIGN FLAG CREWS

(084) SENATOR LAUTENBERG: It is estimated that roughly three-quarter of marine casualties are attributable to human error. In last years testimony to the Subcommittee, the Coast Guard testified that you have only found three discrepancies nationwide regarding inadequate manning levels. All these discrepancies were found at one unit, MSO Boston. Do you really believe that all the violations of the manning requirements are taking place in Boston?

ADMIRAL KIME: Not all of the foreign vessel manning violations are taking place in Boston. Other violations have taken place in other ports since the information given in last year's testimony. A new entry field has been created in the Marine Safety Information System to record these cases. Below is a table listing recent manning requirement violations:

PORT	NAME	FLAG	DATE	REASON*
San Juan, PR	GLOBAL DREAM	Cyprus	9/3/92	License
Tampa, FL	BELIZE REEFER	Honduras	10/1/92	License
San Juan, PR	M/V CAPRICORNIO I	Panama	10/9/92	Licenses
Boston, MA	OCEAN GRACE	Cyprus	10/10/92	Manning
Miami, FL	MY DREAM	Belize	12/29/92	Manning
Hampton Roads, VA	M/V MINI LATRIA	Greece	4/14/93	Manning
Miami, FL	TROPIC STAR	Bahamas	6/11/93	Manning

NOTE: * License or licenses means the vessel was detained for having crewmembers with expired or inappropriate licenses.

Manning means the vessel was detained for having inadequate manning.

A violation is entered into the system when the boarding officer discovers a discrepancy with the safe manning document or a deficiency in a crewmember's qualifications necessitates the detention of a vessel. Our boarding officers actively make spot checks on foreign vessels as directed by published guidance, and they follow up with appropriate actions when discrepancies exist.

(085) SENATOR LAUTENBERG: How do you explain that there have not been more discrepancies and violations written up regarding the training and size of vessel crews?

ADMIRAL KIME: There are no international regulations which require a specific number of crewmembers on board a ship. However, the International Convention for Safety Of Life At Sea, 1974 (SOLAS) requires Flag States to issue a safe manning document to each ship. This document indicates what that State considers to be a sufficient number of crew members. This provision became effective February 1992. For the most part, Flag States are complying with this requirement. When no manning document is aboard a vessel or we consider the manning to be inadequate, we will notify the Consulate of the Flag State and advise them that the ship will not be permitted to depart until an adequate crew has been provided. Procedural guidance on this issue was published in June 1992.

The United States became party to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), in October 1991. The STCW convention provides for control measures to verify that crewmembers hold proper certificates. If a deficiency is discovered, detention of a ship is permitted in some limited circumstances if the discrepancy is not corrected.

(086) SENATOR LAUTENBERG: Are you satisfied that all the nations that have signed the "Standards for Training, Certification and Watchkeeping" treaty are doing an adequate job for training their licensed mariners?

ADMIRAL KIME: Yes. The 98 countries party to the convention are making a good faith effort to comply with the International Convention on Standards of Training Certification and Watchkeeping for Seafarers, 1978 (STCW). Some developing countries, such as the Philippines, have requested assistance from the International Maritime Organization (IMO) to come into compliance with the convention.

The IMO Sub-committee on Standards of Training and Watchkeeping (STW) has also initiated a comprehensive review of STCW to address the high percentage of marine casualties attributable to human error.

(087) SENATOR LAUTENBERG: What are you doing to improve the performance of your own boarding officers in identifying crews that are under-trained and/or under-staffed?

ADMIRAL KIME: Boarding officers now receive training on international conventions and standards related to manning and crew competency during entry level marine inspector training at RTC Yorktown. Additionally, we continue to publish policy guidance and directives, Navigation and Vessel Inspection Circulars and revisions to the Marine Safety Manual to keep boarding officers current with new regulations, enforcement policies, and procedures. We also have unit training teams that provide on-scene instruction for database entry and program guidance in these subjects. These teams also serve as direct envoys between our field offices and program managers to answer questions and initiate new programs.

(088) SENATOR LAUTENBERG: What measures are you taking to ensure that all Marine Safety Offices (MSOs) are adequately enforcing the manning requirements?

ADMIRAL KIME: New guidance for MSOs is continually being promulgated through letters and directives, Navigation and Vessel Inspection Circulars, and revisions to the Marine Safety Manual.

In June 1992, a policy letter was distributed to all MSOs providing both guidance and actions to be taken with regard to the enforcement of safe manning practices for both U.S. and foreign vessels. This policy also explained the proper procedure to report manning violations in the Coast Guard's Marine Safety Information System (MSIS) database, so that these violations can be tracked for repeat offenders and statistical purposes.

(089) SENATOR LAUTENBERG: Do you believe your marine safety offices currently have the necessary expertise to evaluate ships' compliance with the manning requirements?

ADMIRAL KIME: I am satisfied that our Marine Safety Offices (MSOs) have the necessary expertise to evaluate ships' compliance with manning and qualification requirements. Regarding manning compliance, the International Convention for Safety Of Life At Sea, 1974 (SOLAS) requires the flag State to issue a safe manning document to each ship, stating the number of crewmembers required for the safe operation of the ship as determined by the flag State. This rule came into effect in February 1992, and is being enforced by our marine safety offices. Regarding training and qualifications, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW) prescribes the minimum training and qualifications crewmembers must posses to serve aboard vessels belonging to signatory countries. STCW also provides for control measures to be taken when another State determines that crewmembers aboard a vessel do not hold proper certificates. To promote the compliance of these measures, the Coast Guard recently performed the following:

After the U.S. ratification of the STCW in October 1991 and the SOLAS regulation for a safe manning document came into effect on February 1992, a subsequent policy letter was promulgated to MSOs. This policy letter details the reporting and enforcement requirements for SOLAS safe manning documents and the procedures for evaluating crewmember certificates to meet STCW requirements.

In January 1993, the Coast Guard published a Navigation and Vessel Inspection Circular No. 1-93 titled "Control Verification Examinations (CVE's) of Foreign Passenger Vessels," to provide plan review and examination guidance regarding these vessels. This guidance includes specific instructions related to training of personnel and emergency drills that must be witnessed to the satisfaction of the attending Coast Guard inspector.

We are also addressing the above policies at marine inspector and boarding officer schools and through revisions to the Marine Safety Manual.

PREVENTING SHIPS FROM SAILING WITH UNDERMANNED CREWS

(090) SENATOR LAUTENBERG: Admiral, in your verbal remarks, you stated that you have prevented ships from sailing in our ports when in fact they did not have the proper number of required and certificated people aboard their vessel. Please provide historical data regarding the number of instances that this has occurred. Please cite the ports in which this has occurred, and the number of instances that this has taken place for each year in the last five years.

ADMIRAL KIME: The Coast Guard has intervened or detained a number of vessels for having inadequate crew numbers on board. The data for the past five years is as follows:

YEAR	DETENTIONS/INTERVENTIONS	PORT(S)
1993	2	Hampton Roads, Miami*
1992	8	Tampa, San Juan, Miami, Baltimore, Boston (4)
1991	3	Miami, Boston (2)
1990	0	
1989	0	

The Coast Guard has also intervened or detained several vessels due to inadequate shipboard drills. The data for the past three years is as follows:

YEAR	DETENTIONS/INTERVENTIONS	PORT(S)
1993	1	Miami*
1992	0	
1991	2	Miami

Note: * Same vessel detained for inadequate crew numbers and inadequate shipboard drills.

BRIDGE RESOURCE MANAGEMENT TRAINING

(091) SENATOR LAUTENBERG: In the wake of major casualties such as EXXON VALDEZ and the WORLD PRODIGY oil spills, there has been much discussion regarding the benefits of bridge resource management training. Most recently, the NTSB report on the QE2 grounding once again recommends the Coast Guard require bridge resource management training. Some shipping companies reportedly have of their own initiative required such training for all bridge watchstanders in their employ. Does the Coast Guard believe that such training has merit? If not, why not? If so, why is it not currently required?

ADMIRAL KIME: Yes, bridge resource management (BRM) training has merit and to promote this training the Coast Guard has approved several BRM courses and grants mariners equivalent sea service credit for course completion. Currently, BRM training is not required. The Coast Guard has commissioned the Marine Board of the National Research Council to complete a study to assess the role of shiphandling simulation in the professional development of mariners responsible for vessel navigation and piloting to determine its utility for bridge team management, marine education, training and licensing programs. Upon completion of this simulator study, mandated by section 4111 of the Oil Pollution Act of 1990, the Coast Guard will be in a better position to consider making BRM training mandatory. Internationally, the United States has submitted a note at the International Maritime Organization (IMO) proposing development of guidance on the principles and concepts of BRM training. In the meantime, some companies have chosen to voluntarily have their crews trained in bridge resource management.

(092) SENATOR LAUTENBERG: Does the Coast Guard intend to require bridge resource management training in the future? If so, when will it be implemented? If not, why not?

ADMIRAL KIME: The Coast Guard will be in a better position to consider requiring bridge resource management training after completion of the simulator study (October '94) being conducted by the Marine Board. The study, mandated by section 4111 of the Oil Pollution Act of 1990, should recommend which members of the crew, if any, need simulator based training and how often. The Coast Guard will carefully consider all of the study's recommendations before making any decisions. In the interim, the Coast Guard will continue to promote this training by granting equivalent sea service credit for completion of approved courses, allowing mariners to substitute time in training courses for required seagoing experience.

(093) SENATOR LAUTENBERG: How many U.S. shipping companies now utilize this or similar training for their bridge watchstanders? How many companies do not?

ADMIRAL KIME: Coast Guard approved Bridge Resource Management Training courses are offered at seven privately operated training facilities in the United States. Approximately 47 U.S. shipping companies operating inspected and/or uninspected vessels engaged in foreign and/or domestic trade have, on their own initiative, offered bridge resource management training to bridge watchstanders in their employ. There are approximately 70 U.S. shipping companies with inspected vessels engaged in foreign and/or domestic trade. The number of U.S. shipping companies with uninspected vessels engaged in foreign and/or domestic trade is unknown.

(094) SENATOR LAUTENBERG: Is a requirement for bridge resource management training or equivalent standard being considered at the International Maritime Organization? If so, what is the status?

ADMIRAL KIME: Training of officers in bridge resource management is being discussed at IMO. The United States submitted a note to the 38th session of the IMO Sub-committee on Safety of Navigation (July 1992) which proposed development of IMO guidance on bridge team management, including principles relating to the effective use of bridge resources. A working group formed by that Sub-committee agreed that IMO guidance should address "vessel and bridge resource management." This issue will be discussed again at the 39th session in September 1993.

The IMO Sub-committee on Standards of Training and Watchkeeping (STW) has begun work on a comprehensive review and revision of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978. Among the subjects which the U.S. has said should be taken into account during the preparation of STCW amendments is "safe and efficient bridge procedures . . . including bridge resource management."

Once agreement has been reached at IMO on the principles of Bridge Resource Management (i.e., what this concept is intended to encompass in practical terms), the U.S. will advocate a new provision in STCW to require this training.

(095) SENATOR LAUTENBERG: As we are told that the vast majority (80%) of all vessel casualties are related to human error, does the Coast Guard maintain casualty statistics reflecting the type of training maintained by individuals involved in casualties? If not, why not? If such data exists, is it possible to draw any conclusions as to the effectiveness of bridge resource management training?

ADMIRAL KIME: The Marine Investigation Module (MINMOD) of the Marine Safety Information System (MSIS) was implemented 1 January 1992. MINMOD contains general information regarding human factor involvement in marine casualties. In May of 1992, the Human Factors Supplement (MCHF) was brought on line. MCHF contains information of a general nature pertaining to the level of education and source of maritime training of individuals involved in casualties. We have not yet collected sufficient data to determine whether it will be useful in drawing conclusions about the effectiveness of bridge resource management training.

MERCHANT MARINER NEGLIGENCE RESULTING IN DEATH

(096) SENATOR LAUTENBERG: Please list data for the last five years indicating how many marine casualties occurred that resulted in one or more deaths and were attributed to negligence on the part of a licensed or documented merchant mariner. Please list for those same cases the specific action, if any, taken against the license or document holder.

ADMIRAL KIME: There have been a total of thirteen cases of casualties resulting in one or more deaths and attributed to negligence in the past five years. In all of these cases, the Coast Guard has taken action against the license/document of the mariner. The sanctions ordered by Administrative Law Judges include the revocation of the license/document in two cases, outright suspension for periods varying between two and twelve months in five of the cases, and suspensions on probation between three and six months in four cases. Two cases are pending.

BOATING WHILE INTOXICATED

(097) SENATOR LAUTENBERG: In a report released on 13 April 1993, the NTSB revealed that of the 451 boat operators involved in fatal accidents, 76% were not chemically tested to determine the presence

of alcohol. Of those that were tested, 75% tested positive for alcohol. These statistics indicate a significant BWI problem. While a lack of state enforcement officers qualified to administer alcohol impairment tests is largely responsible for a sizable "untested" population, it seems clear that a correlation exists between BWI and fatal accidents. While past efforts of the states, Coast Guard, Coast Guard Auxiliary, and Power Squadron have effectively reduced the percentage of fatal accidents with respect to the increasing boating population, the quality level given the single source cause is still unacceptable. What new initiatives has the Coast Guard undertaken or intend to pursue in this regard either on their own or in conjunction with the states?

ADMIRAL KIME: The Coast Guard has several new boating and alcohol public information initiatives. We plan a wide distribution of the new "Boat Smart Boat Sober" video and development and distribution of a video news release and a new brochure on boating while intoxicated. Secretary Pena recently made a video public service announcement on alcohol and boating. The Coast Guard, the states and the boating industry are promoting "designated driver" or "sober skipper" programs. Continued cooperative efforts are being made to increase public awareness of the dangers of drinking and boating, including the added effects of stressors such as sun, wind, noise, vibration, etc. while boating. More information about the dangers of drinking and boating is being included in Coast Guard Auxiliary public education courses.

We are seeking to increase cooperation with the states in prosecuting boating while intoxicated cases, and are promoting changes to state laws where necessary to accomplish this. We are continuing to enhance the content and presentation of the National Boating Safety Course for state officers conducted by the Coast Guard three times a year. A significant part of the course is dedicated to alcohol detection and enforcement and accident investigation. A very effective new training video, "Upholding the Law", was distributed to all state marine law enforcement agencies and to 100 other local marine law enforcement agencies. We are also working with the states to improve accident reporting and investigation to obtain better data on alcohol involvement in boating accidents.

Future plans include programs and materials targeted to specific groups of boaters and specific age groups. We plan to create an instructor syllabus on the effects and prevention of boating while intoxicated accidents to support Coast Guard Auxiliary, U.S. Power Squadrons, and National Association of State Boating Law Administrators approved boating safety courses. We also plan to develop teaching materials for use in public schools and at the college level on this subject.

HOAX S.O.S. CALLS

(098) SENATOR LAUTENBERG: How many hoax S.O.S. calls did the Coast Guard receive in FY 93? How much did these calls cost the Coast Guard in operating or other expenses? How many of these hoax calls resulted in identification of the responsible party? What action was taken against the originators or responsible parties of these hoax calls? Were civil or criminal penalties assessed? If so, please list the amounts of these of penalties? In addition to any penalties assessed, how much of the Coast Guard's costs in conducting search and rescue for these hoax calls was recouped from the responsible parties? Were all of the expended funds recouped in those cases where a responsible party was identified? If not, why not? Are there any legal impediments precluding the Coast Guard from recouping these funds?

ADMIRAL KIME: As of 25 June, the Coast Guard has received 431 suspected hoax distress calls in FY93; of those, 17 were confirmed hoaxes. By comparison, in FY 92 we received 706 suspected calls and 15 were confirmed as hoaxes. Estimated operating costs associated with these hoaxes total approximately $1,200,000 to date in FY93, and totaled approximately $2,600,000 in FY92. Only 7 persons have been identified as perpetrators of hoax distress calls this fiscal year, and only 11 were identified in FY92. In all cases where the perpetrator was identified, legal action was pursued. In four cases, covering FY92 and FY93, monetary penalties were assessed totaling $56,000. One such case involved a Coast Guard search near the Turks & Caicos Islands, costing the Coast Guard approximately $106,000. The perpetrator was given 1 year probation, 60 days home confinement, 200 hours community service, and ordered to pay $50,000 restitution for the Coast Guard search effort. In a Virginia case, a minor was ordered to do community service and his parents were ordered to pay $2,000, which coincidentally matched the approximate costs of the search. In another case involving 2 men in Stamford, CT, one man received 4 years probation, 4 months home confinement, 400 hours community service and a $2,000 fine; his accomplice received 2 years probation and a $1,000 fine (approximate cost of the search is estimated at less than $2,000). Several other cases are being processed.

Very few hoax calls result in identification of the responsible party. Most transmissions are less than 10 seconds long, and it is not normally possible to pinpoint locations with existing equipment. In many cases, U.S. attorneys are understandably reluctant to prosecute under the Studds (felony) bill for myriad reasons (i.e., cases not malicious, no lives lost, overloaded court dockets, perpetrators are juveniles, etc.). We are currently working closely with the Federal Communications Commission (FCC) on cases where felony prosecution under the Studd's bill is not a viable option due to reasons stated above. With sufficient evidence, FCC (civil) penalty action is pursued in cases where FCC resources are involved, and where the violation does not fit the provisions of the Studds Bill.

Although the statute (14 U.S.C. 88 (c)) holds the violator "liable for all costs the Coast Guard incurs as a result of an individual's actions," there is no authority for the Coast Guard to place those funds in its operating accounts. Funds currently received under this statute are returned to the miscellaneous receipts account of the Treasury.

BOAT MANUFACTURING FACILITY INSPECTIONS

(099) SENATOR LAUTENBERG: In last years Senate Hearing Record you indicated that an insufficient number of trained personnel existed to conduct annual inspections of all boat manufacturing facilities, but that the trend was on the rise. Are there currently a sufficient number of trained personnel to carry out the Coast Guard's responsibilities relating to oversight of boat manufacturing facilities?

ADMIRAL KIME: Yes, the number of personnel trained to perform oversight of boat manufacturing facilities is sufficient, but the total number of visits conducted has been hampered by the competing work load demands of other vessel inspection related missions. To partially alleviate this problem in FY 93 we made a 100% increase in the number of personnel specifically billeted to accomplish Recreational Boating Standards (RBS) factory visits. Previously, the only dedicated personnel resources were six civilian personnel (GS-11). This has now been supplemented by an additional six military personnel (E-7) obtained through the FY92 budget. These twelve trained dedicated personnel have been located in those areas of the country which have the highest concentrations of boat manufacturers to make the best use of limited personnel resources.

In other inspection zones, where total concentrations of boat manufacturers are less, the RBS factory visit program is assigned as a general duty of the vessel inspection department. In these areas a dedicated billet for RBS factory visits would ensure total oversight mission accomplishment, but the numbers of boat manufacturers are not sufficient to warrant a full time RBS inspector. We are looking at the possibility of reassigning billets which would be centrally located for coverage of several inspection zones, including those with smaller concentrations of boat manufacturers. This would provide dedicated coverage of all RBS factories nationwide, improve the consistency of our oversight inspections, make optimum use of personnel resources and eliminate the adverse impact of balancing RBS factory visits against commercial vessel inspection work loads. This concept has already been successfully working between the Seattle, Washington and Portland, Oregon marine inspection zones.

All RBS inspectors, whether in a dedicated billet or not, attend a formal training course and complete a professional on the job training and qualification process. The training course has produced forty new RBS inspectors each year, for the last three years, and we intend to continue this program.

(100) SENATOR LAUTENBERG: What is the programmed duration between such inspections? What is the actual average period between such inspections? Which MSO's/MIO's have the largest differential between programmed and actual inspection intervals?

ADMIRAL KIME: The programmed duration between inspections is one year for facilities that construct boats subject to federal regulations (power boats under 20ft and all gasoline engine boats) and every three years for all other boat manufacturers (eg. canoes, kayaks, inflatables, unmotored sailboats). As of April 1993 our national data base of boat manufacturers indicated that 3,223 manufacturers should be visited annually. This number takes into account the fact that approximately 20% of these boat manufacturers turn over in a typical year, going either in or out of business. The calendar year 1992 national total visits in our data base were 1,514 visits or roughly 50% of the annual target.

Six additional personnel have been added to conduct these Recreational Boating Standards (RBS) visits in ports that have high concentrations of boat manufacturers. We anticipate that this will increase our 1992 number between 500 and 700 visits, bringing the total to approximately 2,000 - 2,200 visits in calendar year 1993. Nationally, this will put the average duration between factory visits at 1.5 years or roughly 66% of the programmed interval.

The ports with the best record of RBS factory visits are those 13 inspection zones with a dedicated billet. In these locations the visits are conducted at or above the programmed interval. Boat manufacturers are often spread over a broad geographic area, unlike commercial vessels that are concentrated in port and waterway areas. The interval between visits to a boat builder is sometimes influenced by location. For example, manufacturers located more than 400 miles from where inspectors are assigned often are inspected less frequently. The ports with the largest differential between visits tend to have lower concentrations of recreational boat manufacturers which are spread out geographically, a high rate of manufacturer turnover, no dedicated RBS billet, and a high volume of commercial vessel inspection work. Prime examples of this situation are Marine Safety Offices New Orleans, LA; Morgan City, LA ; Port Arthur, TX; San Juan, PR.

(101) SENATOR LAUTENBERG: Where do manufacturing facility inspections sit on the priority list for the use of marine inspectors?

ADMIRAL KIME: Legally mandated vessel inspections, for which the Coast Guard is directly responsible, are assigned a higher priority than oversight inspections, like recreational boat manufacturer visits. However, the assignment of an adequate numbers of marine inspectors, and advance scheduling, can allow both to be accomplished. Oversight programs serve an important public safety function, and we have established performance standards to guide our inspection offices in their scheduling and conduct. However, if a permanent or temporary shortage of marine inspector personnel forces a choice between mandatory vessel inspections and oversight, we must deal with mandatory vessel inspections first.

(102) SENATOR LAUTENBERG: Has any thought and/or planning been given to adjusting the planned interval between inspections? Are these inspections generally announced? If so, why? Might it make more sense to introduce random inspections with no established time intervals that are not announced?

ADMIRAL KIME: In cases where a manufacturer has been found selling boats which have a regulatory noncompliance, the local inspection office may make unscheduled or repeat visits to check and verify compliance. For manufacturers that have a continuous record of compliance with regulations or for the first visit to a new manufacturer, the preferred method is to schedule the visit in advance. The rationale for this approach is twofold. First, our primary purpose for the factory visits is to educate and inform boat manufacturers about federal safety regulations and help them achieve compliance before the boat is sold to the consumer. Second, there is no enforcement or penalty authority under the law until a boat is offered for sale. Because of this, boats under construction at the factory are not yet under Coast Guard enforcement jurisdiction.

Part of the enforcement process is the Coast Guard's boat testing program, wherein we purchase boats as if we were a consumer and then have an independent lab test to see if they meet regulatory standards. We inform manufacturers during the factory visit that we randomly purchase and test boats and that if their boat does not comply, we may require them to conduct a defect notification of all purchasers and pay for correction of any noncompliances. If they fail to make these corrections, a fine can be assessed. We base our boat test selections in large part on our inspectors' observations during the factory visits. In the last few years several manufacturers have been assessed substantial fines for failure to correct safety defects on boats they have sold. Our best choice for random unscheduled enforcement is at the point of sale where we have full jurisdiction.

The focus of the annual factory visit is education about boating safety regulations. Scheduling visits in advance ensures that the maximum number of people who need to know this information are present on the day the Coast Guard visits. As noted previously, we can and do make unscheduled visits and conduct other enforcement actions where warranted.

ANNOUNCED AND UNANNOUNCED INSPECTIONS

(103) SENATOR LAUTENBERG: Please cite each type of inspection/boarding/oversight activity performed by Coast Guard personnel (shore facility, U.S. vessel, foreign vessel, boat manufacturing facility, etc.), and explain whether they are announced or unannounced. Please also provide a rationale as to why the Coast Guard chooses to inform or not inform the vessel/facility, etc. of their impending arrival.

ADMIRAL KIME: Mission performance standards and other policy guidelines do not usually specify whether marine safety inspection activities should be announced or unannounced. This decision is most often left to the discretion of the Coast Guard Captain of the Port (COTP). Some types of inspection activities which would typically be announced beforehand would include inspections of: vessels for certification, waterfront facilities, MARPOL waste reception facilities, and outer continental shelf facilities. The rationale behind prior notification and scheduling is that inspections of this type are extensive and require preparations such as opening up spaces not normally accessible and testing equipment in advance of the Coast Guard's arrival. These inspections may also necessitate attendance and coordination by key vessel or facility personnel. Further, programs and activities which are predominantly educational in nature are also usually announced beforehand. Examples are fishing vessel dockside examinations and recreational boating standards factory visits.

Examples of activities which may be unannounced are routine port safety boardings of U.S. and foreign vessels, cargo transfer monitors, pollution prevention monitors, hazardous materials inspections, and inspections during harbor patrols. Unannounced inspections have several advantages. They often provide a more accurate portrayal of day to day operations since parties being inspected have less time to formally prepare for them. In addition, unannounced inspections have deterrent value in that industry realizes that the Coast Guard could perform an inspection or spot check at any time.

(104) SENATOR LAUTENBERG: Has this policy been reviewed in recent years? What changes have been made in recent years? What changes are currently under consideration?

ADMIRAL KIME: Mission performance standards and other enforcement policies were reviewed earlier this year in connection with a project to comprehensively revise the Coast Guard Marine Safety Manual (MSM). Although performance standards for various marine safety activities listed in MSM Volume I, Chapter 2 were revised, they continue to stress flexibility by allowing the Captains of the Port to use discretion in deciding whether to conduct announced or unannounced inspections. No additional changes are being considered regarding announced versus unannounced inspection criteria.

DENYING LICENSES/CLEARANCES TO CIVIL PENALTY SCOFFLAWS

(105) SENATOR LAUTENBERG: Last year, you stated that you were having extraordinary difficulties collecting civil penalties from both U.S. and foreign flag ships. As a result, this Committee took the unusual step of including statutory language in the appropriations bill enabling you to rescind the license of U.S. flag ships that owe delinquent civil penalties, and deny foreign flag ships the right to leave U.S. waters if the vessel owner is delinquent in paying civil penalties. You were granted this authority seven and a half months ago. To date, how many licenses have you revoked from U.S. flag ships for failure to pay civil penalties? What percentage of the U.S. flag ships that owe delinquent penalties have had their licenses revoked?

ADMIRAL KIME: We have revoked the documents of 30 vessels. This is approximately 10% of the U.S. flag ships whose owners have not paid assessed penalties.

(106) SENATOR LAUTENBERG: When do you estimate that all delinquent U.S. flag ships will either have paid their delinquent penalties or have their licenses revoked?

ADMIRAL KIME: As we continue to implement the new authority granted by the Committee, we expect that the deterrent effect of revocation of Certificates of Documentation, and ultimately vessel forfeiture, will greatly improve our collections of assessed penalties. It is difficult to predict when or if we will ever reach the stage of having collected every delinquent civil penalty or having revoked every Certificate of Documentation.

(107) SENATOR LAUTENBERG: To date, how many foreign flag ships have you held in port until their owner paid delinquent civil penalties? What percentage of the outstanding penalties owed by foreign flag ships have you collected using this tool?

ADMIRAL KIME: Comprehensive data regarding vessels detained in U.S. ports to collect civil penalties is not yet available through the Marine Safety Information System (MSIS). However, from the time that PL 102-388 granted authority regarding Federal Water Pollution Control Act (FWPCA) violations, the Coast Guard has had uncollected debts involving 31 foreign flag vessels for Section 311 penalties totalling approximately $125,000. Of those 31 vessels, five entered U.S. ports, were held, and paid a total of $33,948 prior to being released. The remaining cases are pending an opportunity to withhold clearance on the vessels.

The Coast Guard cannot request that U.S. Customs withhold the clearance of foreign vessels to leave port for all types of civil penalties. In the 1993 Department of Transportation and Related Agencies Appropriations Act (P.L. 102-388), the Coast Guard was given the authority to request that clearance to depart be withheld for

U.S. and foreign vessels whose owner, operator, or person in charge is liable for, or may be subject to a civil penalty under Section 311(b) of FWPCA. Additionally, some other statutes, notably the Ports and Waterways Safety Act and the Act to Prevent Pollution From Ships, contain similar authority. The sum of these authorities encompasses the wide majority of potential pollution violations enforced by the Coast Guard and have proven to be a valuable tool in collecting these outstanding civil penalties.

(108) SENATOR LAUTENBERG: Will you succeed in collecting ALL of the outstanding penalties owed by foreign flag ships using this tool? When?

ADMIRAL KIME: The Coast Guard does not have a general grant of authority to withhold clearance for civil penalties, whether prospective, assessed or dilinquent. As mentioned earlier, in reply to the previous question, the Coast Guard has only limited authority to request that U.S. Customs withhold the clearance of U.S. or foreign vessels to leave the United States. The Coast Guard was given the authority to request that clearance to depart be withheld for vessels whose owner, operator, or person in charge is liable for, or may be subject to, a civil penalty under the Federal Water Pollution Control Act (FWPCA). That has usually led to the posting of a bond, or similar surety, for civil penalties which may be assessed under the FWPCA. In summary, the Coast Guard's current enforcement tools make it difficult to collect oustanding penalties owed by foreign flag ships.

(109) SENATOR LAUTENBERG: How much money have you collected as a result of each of these new authorities granted to you in the appropriations bill?

ADMIRAL KIME: It is difficult, especially as we are still in the initial stages of implementing the new authority to revoke Certificates of Documentation, to directly quantify its actual dollar value. That difficulty is expected to continue because we refer to the prospect of revocation, in addition to other collection means and tools, early in the collection process. However, in cases where the other tools have not been effective, and when the Coast Guard informed the debtor that the next step is revocation, we have received $47,500. In addition, payment plans for incremental payments have been established for thirty-two cases. Those figures are expexted to increase as we use the authority, then level out or decrease as violators are deterred.

PENALTIES RESULTING FROM VESSEL DEFICIENCIES

(110) SENATOR LAUTENBERG: A review of the civil penalty data indicates that an extraordinarily small percentage of deficiencies found on foreign vessels actually result in violations processed by your Marine Safety Offices. For example, of the 912 deficiencies found aboard foreign passenger ships, primarily cruise ships, only 55 resulted in actual violations--roughly 6 percent. For all foreign flag crude oil tank ships, roughly 20 percent of all deficiencies result in violations. Do you find that rate to be acceptable for the processing of violations aboard crude oil tank ships?

ADMIRAL KIME: That rate may or may not be acceptable depending on the reliability of the data and the specific circumstances of the cases.

We believe the figures you used in your question were taken from the data sets for FY92 which were compiled to this level of detail for the first time this year. As this is a first time use of the data in this form, the cognizant program managers are presently conducting a verification of the data to ensure accuracy and reliability before detailed analysis is conducted. In addition, they will be looking for the types of disparities reflected in your question. If the rates are, in fact, as low as the data indicates, we would be interested in determining why the percentages are so low and whether those causes indicate that there are problems in the enforcement program.

(111) SENATOR LAUTENBERG: For chemical tankers, almost 40 percent of all deficiencies result in the processing of a violation case. What explains the fact that deficiencies aboard chemical tank ships are twice as likely to be processed as violations than those aboard oil tank ships, and almost six times as likely to be processed as violations than deficiencies found aboard passenger ships?

ADMIRAL KIME: I believe the figures you used in your question were taken from the data sets for FY92, compiled to this level of detail for the first time this year. Thus, the cognizant program managers are presently conducting a verification of the data to ensure accuracy and reliability before detailed analysis is conducted. In addition, they will look for the types of disparities reflected in your question. If the data is correct, we will be interested in determining the causes of the disparity and whether the disparities are the result of problems in the enforcement program.

(112) SENATOR LAUTENBERG: Please explain the disparities between your many Marine Safety Offices and the frequency with which they choose to pursue violations and assess penalties? What steps are you taking to address these disparities?

ADMIRAL KIME: We have not completed enough research to explain the disparities. However, with new data, compiled for the first time this year, we will be able to examine the causes of disparities in enforcement rates. Because this is the initial use of data in this form, the cognizant program managers are verifying the information to ensure accuracy and reliability before detailed analysis is conducted. If discrepancies exist, we will determine the causes and to remedy them.

Vessels, ports, and environmental conditions are rarely exactly the same; similar deficiencies on different ships may dictate different Coast Guard Captain of the Port actions. The goal of our marine safety program is safety of lives and property and protection of the marine environment. One of the ways we pursue this goal is to compel and enforce compliance with standards. Civil penalty procedures is only one of several tools we use to enforce standards. Violations and penalty assessment, alone, does not give the complete picture of the compliance and enforcement program.

DISPARITIES BETWEEN MSOs

(113) SENATOR LAUTENBERG: Some observers have stated that disparities between Marine Safety Offices do not, in of themselves, indicate inadequate efforts of enforcement and safety since some Captain of the Port's (COTP's) chose to require vessels to fix discrepancies as a condition of sailing and do not, in some instances, pursue violations and civil penalties. Do you agree with these observations?

ADMIRAL KIME: Yes. Vessels, ports, and environmental conditions are rarely exactly the same; similar deficiencies on different ships may dictate different Coast Guard COTP actions. Not all deficiencies are violations, and accordingly are treated differently from violations. The COTPs have many enforcement tools at their disposal to use and the empowerment to choose the appropriate enforcement tool dictated by the circumstance of the case and by the constraints of policy and law. These tools include, on-the-spot corrections, civil penalties, COTP orders, detention actions, restraint of trade, and denial of entry, among others.

In all cases the COTPs seek to use the most effective means of achieving our goal of the safety of lives and property and the protection of the marine environment. The compliance tool chosen is often the one which will most likely achieve compliance immediately at the port of call and will induce compliance for future port calls.

(114) SENATOR LAUTENBERG: Some observers have stated that disparities between Marine Safety Offices do not, in of themselves, indicate inadequate efforts of enforcement and safety since some

Captain of the Port's (COTP's) choose to require vessels to fix discrepancies as a condition of sailing and do not, in some instances, pursue violations and civil penalties.

Do you find the disparities between Marine Safety Office's (MSO's) in their rate of pursuing violations and civil penalties to be an inherent weakness in the program? If not, why?

ADMIRAL KIME: No, I do not find the disparities in enforcement rates to be an inherent weakness in the Coast Guard's Marine Safety program. Our goal is to promote the safety of lives and property and protect the marine environment. To achieve this goal, we take the preventive approach whenever possible. During the course of business, where discrepancies are found, our first response is to require correction of the problem. The identification of a safety problem is usually enough to elicit corrective action on the part of the conscientious operator. In many cases, no additional enforcement action is necessary, but the specific situation and applicable statutes weigh heavy in this command decision. In other cases, where required by law or where necessary to deter future violations, consideration must be given to penalty action. In all cases, COTPs seek to use the most effective means of achieving our program goals.

The process of carrying out the Coast Guard's Marine Safety enforcement responsibilities is a complex, and dynamic one. At its best, it provides a deterrent to the violation of marine safety and pollution prevention requirements. Misused, it could permit essentially automatic and possibly unnecessary penalty assessments for violations more effectively remedied by alternative means. Each violation situation has a unique best solution; "cookbook" solutions are simply not appropriate. The Coast Guard has determined that a consistent approach, such as described above, is the most effective way to achieve compliance.

(115) SENATOR LAUTENBERG: Some observers have stated that disparities between Marine Safety Offices do not, in of themselves, indicate inadequate efforts of enforcement and safety since some Captain of the Port's (COTP's) chose to require vessels to fix discrepancies as a condition of sailing and do not, in some instances, pursue violations and civil penalties.

If such disparities exist, how do you measure the effectiveness of the entire civil penalty program? How do you currently measure the diligence and effectiveness of individual Marine Safety Office's (MSO's) and what have your studies indicated?

ADMIRAL KIME: Until recently we did not have the data sets needed to measure the effectiveness of the civil penalty program, or the performance of individual Marine Safety Offices (MSO). A "Total Quality Management" Natural Working Group recently created the data sets necessary to analyze most field office activities. The new data sets will be able to track civil penalties from their initiation through to final disposition. We will be able to sort this data by regulatory cite and MSO activity. We have contracted with a commercial firm and have held a series of workshops to develop measures of effectiveness for program activities. We anticipate the data will be compiled and measures of effectiveness will be formulated for use in analysis during the coming year.

We currently do not have the means for measuring the diligence and effectiveness of individual Marine Safety Offices, but as indicated above we are working toward that capability. We have not conducted studies to specifically measure the diligence and effectiveness of individual Marine Safety Offices.

INADEQUATE CIVIL PENALTY ASSESSMENTS FOR MARPOL V VIOLATIONS

(116) SENATOR LAUTENBERG: A review of MARPOL penalty cases as they work their way through the system indicates that in general, once people in the field recommend a fine for a violation, the Coast Guard District Office then lowers the recommended fine, and then the hearing officer hears the case and assesses a still lower fine. Why is it that these MARPOL violation penalties are consistently

"discounted" as they work their way through the system? In your view are field units being too aggressive or are your hearing officers being too lenient?

ADMIRAL KIME: A discrepancy between a recommended penalty amount and an assessed penalty amount may not necessarily be an indication of either too much aggression or too much leniency, but rather a reflection of the differences in process at the enforcement and adjudication phases.

There are some aspects of the process which must be understood if comparing recommended penalties to assessed penalties. The recommended penalty amount is developed without benefit of complete information, particularly information on the party's behalf. While a district program manager conducts an objective evaluation of violation cases for sufficiency and evidentiary content, the hearing officer makes an assessment decision with full knowledge of both the Coast Guard's and the party's evidence. It may well be that, once complete information is gathered, the totality of that information may not support a penalty at the level recommended by the unit or district. The hearing officer should assess a penalty at a level which is fully supported by all the evidence.

OIL POLLUTION ACT REGULATIONS

(117) SENATOR LAUTENBERG: The Oil Pollution Act was enacted into law almost three years ago. Even so, there are several critical rulemakings to implement the law that have yet to be finalized. Last year, you told us that President Bush's regulatory moratorium had no impact on the promulgation of rules relating to the Oil Pollution Act. What is your deadline for implementation of a final rule regarding the financial responsibility provisions of the Oil Pollution Act? Weren't these financial responsibility regulations one of the central purposes of the Oil Pollution Act?

ADMIRAL KIME: The Coast Guard has prepared a preliminary Regulatory Impact Analysis (RIA), which soon should be available to the public. The RIA will have a 60 day comment period. Many comments can be expected. After the evaluation of these comments, we will make our decision on the final rule.

Until the final rule is promulgated, vessel financial responsibility is provided at the lower levels of preexisting laws, but liability is at OPA 90 levels. Most vessels carry insurance coverage that exceeds the OPA 90 limits, but the coverage is subject to a list of defenses and exclusions, just as any non-guaranteed coverage would be.

Vessel financial responsibility is an integral part of OPA 90's title I liability and compensation regime. Financial responsibility is designed to assure prompt payment by responsible parties of removal costs and damages resulting from discharges or threats of oil discharge.

(118) SENATOR LAUTENBERG: I was instrumental in including a provision in the Oil Pollution Act that requires you to check with the National Driver Register to ensure that applicants for Coast Guard licenses do not have a history of drunk driving arrests. To date, you have not promulgated even a proposed rulemaking on this issue. Why has nothing happened on this issue in almost three years?

ADMIRAL KIME: The National Traffic Safety Administration (NHSTA) of the Department of Transportation (DOT) maintains the National Driver Register (NDR). The Coast Guard currently does not have direct access to the National Driver Register. As it is written, the National Driver Register Act requires agencies such as the Coast Guard to access the data base through the chief driver licensing officer of a participating state having direct access to the NDR. This indirect access process is cumbersome and may result in licensing delays as well as increased costs.

NHSTA believes that Federal agencies should have direct access to the NDR rather than being required to go through participating states as is now the case. To remedy this access problem, in 1991 NHSTA proposed an amendment to the Surface Transportation Assistance Act of 1991 to authorize direct access for Federal users. The amendment was not approved. NHTSA resubmitted the proposed amendment in 1992 and, again, it was not successful. NHTSA plans to reintroduce the legislation in 1993. The Coast Guard supports amending the NDR Act to permit Coast Guard direct access to the NDR. This would result in almost instantaneous checks at the point of application and renewal.

In cooperation with the NHTSA, the Coast Guard has attempted to identify the most cost effective and user friendly way to access the NDR within existing statutory constraints. To develop a reasonable alternative to direct access, the Coast Guard approached several states that have access to the NDR and discussed the administrative problems, workload concerns and physical constraints associated with using the state for Coast Guard access to the NDR. As a result of these discussions, the Coast Guard has determined that the most effective method of access, consistent with current law, would be through the Commonwealth of Virginia. The Coast Guard proposes to require applicants to submit a consent form allowing access to the NDR. The Coast Guard will then forward requests for checks through the chief driver licensing official for Virginia. Virginia will then query the NDR and relay the response back to the Coast Guard. Virginia already performs a similar service for the National Transportation Safety Board, although on a very limited basis.

The Coast Guard anticipates publication of a Notice of Proposed Rule Making (NPRM) by the end of the summer. A final rule is expected to be published early next year.

STATUTORY DEADLINES FOR OPA 90 REGULATIONS

(120) SENATOR LAUTENBERG: Please provide a list of OPA 90 statutory deadlines indicating those actions completed and those deadlines yet to be met. For those deadlines yet to me met also indicate an estimate completion date.

ADMIRAL KIME: The following list contains all the regulatory projects with statutory deadlines which the Coast Guard is implementing in response to the mandates in OPA 90. The list of completed actions includes those without statutory deadlines.

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#57 Sec. 4202(b)(4) Tank Vessel
Response Plans

ABSTRACT: The Oil Pollution Act Of 1990 (OPA 90) requires an owner or operator of a tank vessel as defined in the OPA 90 to prepare and submit a response plan for a worst case discharge of oil or a hazardous substance.

CONGRESSIONAL DUE DATE: 8/92

STATUS: Advance Notice of Proposed Rulemaking (ANPRM) published 08/30/91; Notice of Proposed Rulemaking (NPRM) published 06/19/92; Interim final rule (IFR) published 02/05/93. Public comment period closed 04/06/93. 56 comments received.

SCHEDULE: Final Rule (FR) 8/94

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#88 Sec. 4202(b)(4) Facility Response Plans

ABSTRACT: OPA 90 requires an owner or operator of a marine transportation related onshore facility which could reasonably be expected to cause substantial harm to the environment by discharging oil or hazardous substances into navigable waters of the United states to prepare and submit response plans for a worst case discharge of oil or hazardous materials.

CONGRESSIONAL DUE DATE: 8/92

STATUS: ANPRM published 03/11/92; IFR published 02/05/93.

SCHEDULE: FR 8/94

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#44 Sec. 4116(c) Escorts for Certain Tankers

ABSTRACT: OPA 90 requires the designation of the U.S. waters, specifically in Prince William Sound (PWS) and Puget Sound (PS), where single hull tankers greater than 5000 GT must be escorted by at least two towing vessels.

CONGRESSIONAL DUE DATE: Initiation of rulemaking by 2/18/91.

STATUS: NPRM published 07/07/92. Comment period reopened 3/26/93. Comment period closed 6/93. Public Hearings held on June 6/3, 6/5, and 6/7, 1993.

SCHEDULE: FR 7/94

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#44A Sec. 4116(c) Escorts for Certain Tankers--Other Areas

ABSTRACT: This regulation will determine the U.S. waters, other than Prince William Sound and Puget Sound, where tankers and ***********
#27 Sec. 4109 Periodic Gauging of Plating
Thickness of Com

rcial Vessels DUE DATE: Initiation of rulemaking by 2/18/91.

STATUS: ANPRM published 4/27/93. Comment period closed 6/24/93. Hearings will be held on 6/3, 6/5 and 6/7, 1993.

SCHEDULE: NPRM 11/93.

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#28 Sec. 4110(b)(1) Overfill Devices

ABSTRACT: OPA 90 requires minimum standards for devices for warning of overfills of tanks on tank vessels.

CONGRESSIONAL DUE DATE: 8/91

STATUS: NPRM published 1/12/93. Comment period closed 3/15/93. 32 comments received. Interim final rule in clearance.

SCHEDULE: IFR 12/93

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#37 Sec. 4115(b) Existing Tank Vessels Hull Requirements

ABSTRACT: OPA 90 requires the Coast Guard to address the interim measures that existing vessels must take to provide substantial protection to the environment. It applies to existing vessels until the vessel must comply with the double hull requirements. Based on age, existing ships must comply with the double hull regulations beginning 1/1/95. With limited exception, no tank vessel without a double hull may operate after 1/1/95. Interim measures are to include structural and operational standards to provide substantial protection to the environment.

CONGRESSIONAL DUE DATE: 8/91

STATUS: ANPRM published 11/01/91. NPRM being developed.

SCHEDULE: NPRM 7/93

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#51 Sec. 4202(a) Equipment Requirements Inspection

ABSTRACT: OPA 90 requires the periodic inspection of containment booms, skimmers, vessels, and other major equipment used to remove discharges. In addition, it would require vessels operating on navigable waters and carrying oil or a hazardous substance in bulk as cargo to carry appropriate removal equipment that employs the best technology economically feasible and that is compatible with the safe operation of the vessel.

CONGRESSIONAL DUE DATE: 8/92

STATUS: NPRM published 9/29/92. IFR reflects Coast Guard and Navigation Subcommittee's (CG&N) concerns regarding tests and demonstrations of "innovative technology". The Coast Guard and Navigation Subcommittee has introduced language to legislatively "authorize" the Coast Guard to undertake a formal testing and evaluation program specifically related to carriage of booms and skimmers. IFR being developed.

SCHEDULE: IFR 9/93

**002, 2003 &

2004 Amend COMPLETED

#20 Sec. 4104 Removal of Master or PIC COMPLETED

ABSTRACT: OPA 90 requires the Coast Guard to establish minimum standards for plating thickness for vessels constructed or adapted to carry oil in bulk or as cargo residue. It also requires periodic gauging of the applicable vessels that are more than 30 years old.

CONGRESSIONAL DUE DATE: 8/91

STATUS: NPRM published 03/23/93. FR being developed.

SCHEDULE: FR 11/93

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#29 Sec. 4110(b)(2) Tank Level or Pressure Monitoring Devices

ABSTRACT: OPA 90 requires that tank level or pressure monitoring devices be used for leak detection purposes. There are serious technical problems with the idea of leak detection based on tank level or pressure monitoring devices. The intent of the ANPRM was to develop information which would specify tolerances in the measuring equipment as well as acceptable construction and proper installation.

Under Coast contract, different devices, their costs, advantage, and disadvantages were studied.

CONGRESSIONAL DUE DATE: 8/91

STATUS: ANPRM published 05/07/91. NPRM being developed.

SCHEDULE: NPRM 9/93

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#38 Sec. 4115(a) Establishment of Double Hull Requirements for Tank Vessels Carrying Oil

ABSTRACT: OPA 90 requires the establishment of double hull requirements for new and existing vessels that carry oil in bulk. USCG published an IFR on 8/12/92, setting the design standards for double hulls on any type vessel which carries oil as cargo or cargo residue. New vessels that are constructed or undergo a major conversion by contracts awarded after 6/30/90, or are delivered after 12/31/93 must be double hulled. Additionally, a phase-out schedule mandated by OPA 90 is provided for in the IFR, which requires single hulled vessels to be converted to double hulled or be taken out of oil transportation service within the U.S. This phase-out schedule is based on the existing single skin vessel's age, gross tonnage, and hull configuration. The phase-out schedule for existing vessels initiates 1/1/95, and ends 1/1/15.

CONGRESSIONAL DUE DATE: 8/91

STATUS: NPRM published 12/5/90. IFR published 8/12/92. Comment period closed 2/26/93. Comments received are under review, with final rule in development.

SCHEDULE: FR 12/93.

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COMPLETED PROJECTS, STUDIES & ACTIONS

#11	Sec. 2001, 2002, 2003 & 2004 Amend	COMPLETED
#20	Sec. 4104 Removal of Master or PIC	COMPLETED
#25	Sec. 4107(b)(1)&(2) Vessel Traffic Service Studies	COMPLETED
#26	Sec. 4108 Great Lakes Pilotage	COMPLETED
#32	Sec. 4112(a)&(b) Dredge Modification Study	COMPLETED
#35	Sec. 4114(a) AutoPilot	COMPLETED
#35A	Sec. 4114(a) Unattended Machinery Spaces	COMPLETED
#36	Sec. 4114(b)(e) Tank Vessel Manning	COMPLETED
#40	Sec. 4115(e)(1) Alternative Vessel Design Study	COMPLETED
#42	Sec. 4116(a) Prince William Sound	COMPLETED

#43	Sec. 4116 Second Officer on the Bridge	COMPLETED
#45	Sec. 4117 Pollution Prevention Training Program Study	COMPLETED
#46	Sec. 4118 Vsl Comms Equipment	COMPLETED
#52	Sec. 4202(b)(1) Designation of Areas	COMPLETED
#53 & 54	Sec. 4202(b)(1)(B) Area Contingency Plans	COMPLETED
#55	Sec. 4202(b)(2) NRU Project	COMPLETED
#56	Sec. 4202(b)(3) CG District Response	COMPLETED
#58	Sec. 4203 CG Vessel Design	COMPLETED
#59	Sec. 4204 Determination of Harmful Quantities	COMPLETED
#60	Sec. 4205 Coastwise Oil Spill Response Cooperatives	COMPLETED
#62	Sec. 4302 Other Penalties	COMPLETED
#63	Sec. 4303(1016(a)) Financial Resp Civil Penalties	COMPLETED
#66	Sec. 5001 Oil Spill Recovery Institute	COMPLETED
#67	Sec. 5002 Terminal & Tanker Oversight	COMPLETED
#68	Sec. 5003 Install Bligh Reef Light	COMPLETED
#69	Sec. 5004(2) Prince William Sound Tanker Control Report	COMPLETED
#70	Sec. 5004(1) VTS Valdez Regulations	COMPLETED
#75	Sec. 8302(c) Canada International Agreement	COMPLETED
#86	Delegation of Authority	COMPLETED
#88A	Sec. 4202(b)(4) Facility Response Plans for Non-Marine Transportation Facilities	COMPLETED

STATUS OF OPA 90 NON-REGULATORY ACTIONS

(121) SENATOR LAUTENBERG: Please provide an update of the status of all OPA 90 non-regulatory actions.

ADMIRAL KIME: The following list contains all the non-regulatory projects which the Coast Guard is implementing in response to the mandates in OPA 90.

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#02 Sec. 1004(d)(2)(A) Deepwater Ports Study

ABSTRACT: OPA 90 directs the Secretary of Transportation to conduct a study of the relative operational and environmental risks of transporting oil via deepwater ports versus other ports. The study is being prepared by USCG and will compare the relative risks of delivering oil to the U.S. by four modes of transportation: direct vessel deliveries, lightering, deepwater ports and offshore mooring stations.

CONGRESSIONAL DUE DATE: 8/18/91

STATUS: Report is in clearance in the Office of the Secretary of Transportation. A final report is scheduled for July, 1993.

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#30 Sec. 4111(a)&(b) Tanker Navigation
Safety Study

ABSTRACT: OPA 90 requires a study to determine whether existing laws and regulations are adequate to ensure safe tanker navigation in U.S. waters, including the exclusive economic zone. Twelve specific areas are enumerated in this project.

CONGRESSIONAL DUE DATE: Extended Submission Date - FY 95

STATUS: 11/26/92 Interim report delivered to Congress.

4111(b)(1) - Determine Appropriate Crew Size on Tankers:

4111(b)(2) - Crew Qualifications and Training: Significant progress made in analyzing job/tasks of licensed officers. The Volpe National Transportation Systems Center (TSC) representatives report that the study is running ahead of schedule.

4111(b)(3) - Ability of tanker crewmembers to take emergency actions for discharges:

4111(b)(4) - Adequacy of Tanker Navigation Equipment:

4111(b)(5) - Electronic means of Position Reporting:

4111(b)(6) - Tanker Navigation Procedures:

4111(b)(7) - Tanker Free Zones: The study plan now calls for conducting the study in segments (West Coast, Gulf Coast, and East Coast). These segments will be submitted to Congress when each is complete. The TSC Statement of Work is under development at this time. All segments will be done before the 4111 FY 95 submission date.

4111(b)(8) - Inspection Standards: Existing hours on the Environmental Protection Agency (EPA) contract will be reprogrammed to conduct this study. Thesis on innovative inspection techniques is under review.

4111(b)(9) - Review of Past Studies (Literature Search):

4111(b)(10) - Simulator Training: Research material received from NTIS.

4111(b)(11) - 20-Year Trend/Risk Analysis of Tanker Size, Capacity & Flag State: 5/12/93 The Military Interdepartmental Procurement Request delivered to the Maritime Administration. TSC reports that Mercer Management is expected to provide a revised statement of work once Tank Vessel Response Regulatory Impact Analyses are complete.

4111(b)(12) - Remote Alcohol Testing Program: Comments from drug/alcohol testing Management Information System being reviewed. 11/19/92 Concept paper revised.

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#31 Sec. 4111(c) Report on Tanker
Navigation Safety Study

ABSTRACT: OPA 90 requires a report to Congress on the results of the study to determine whether existing laws and regulations are adequate to ensure the safe navigation of vessels transporting oil or hazardous substances in U.S. waters and the exclusive economic zone. Implementation recommendations are also required.

CONGRESSIONAL DUE DATE: FY 1995

STATUS: Interim report delivered to Congress on 11/26/92.

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#41 Sec. 4115(e)(2) Secretarial Studies

ABSTRACT: OPA 90 requires the Coast Guard to review and report to Congress on the impact of 4115 of OPA 90 on the safety of the marine environment, the economic viability, and operational makeup of the oil transportation industry.

CONGRESSIONAL DUE DATE: 8/18/95

STATUS: Report due 8/18/95. Content depends on future activities.

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#74 Sec. 7001(b) Oil Pollution Research
& Development Program

ABSTRACT: OPA 90 creates an Interagency Coordinating Committee on oil pollution research. A Department of Transportation representative will serve as chairman.

CONGRESSIONAL DUE DATE: Study due by 2/91.

STATUS: 2/4/93 Research and Development Management Information System database prototype being initiated. Proceedings from International Oil Spill Research and Development Forum published. Work continues on expanded version of International Oil Spill Abstract Database.

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#71 Sec. 5004(1) Valdez Vessel Traffic
Service Improvements

ABSTRACT: This section requires the Coast Guard to acquire, install, and operate necessary equipment to increase the range of the existing Vessel Traffic System (VTS) in Valdez to track the locations and movements of Trans-Alaska Pipeline System tankers in Prince William Sound. The Coast Guard is incorporating the use of an automated dependent surveillance system that utilizes differential Global Positioning System (dGPS) as a positioning source to fulfill the requirements under this section.

CONGRESSIONAL DUE DATE: 8/91

STATUS: Completion date for installing the system is targeted for late 1993.

#38B Sec. 4115(a) Establishment of Double
Hull Requirements for Tank Vessels Carrying Oil
Strength of Structure of Double Hull Inland Tank Barges

ABSTRACT: The objective is to research the strength requirements of double hull tank barges built for both inland operation and lakes, bays, and sounds. A major revision to the ABS rules will be developed in the mid-1990's for river barge construction. Results of this study will be used in the development of structural standards for double hull tank barges operating on rivers, lakes, bays, and sounds.

CONGRESSIONAL DUE DATE: None

STATUS: The Coast Guard is reviewing draft report of task 1, Casualty Statistics Study, and evaluating contractor recommendations for Task 2 which includes plan to conduct study of structural analysis of barges. Task 1 completed. Contractor is working on task 2. The report is scheduled for completion in 9/93.

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#50 Sec. 4202(a) Appointment of Committee
Members

ABSTRACT: OPA 90 requires the establishment of an Area Committee for each designated area comprised of members appointed by the President from qualified personnel of Federal, State, and local agencies. In addition, it directs Area Committees to prepare and submit for approval an Area Contingency Plan and describes what information should be included in the plan.

CONGRESSIONAL DUE DATE: None

STATUS: Final Notice is in clearance and should be published by 9/93.

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#90 Sec. 4202(a) Contractor Classification

ABSTRACT: This project addresses the formal classification process for private oil spill response contractors. It addresses the categorization/standardization of contractor resources to facilitate the development (by ship and facility owner/operators) and assessment and approval/disapproval of response plans.

CONGRESSIONAL DUE DATE: NONE

STATUS: Interim classification process on-going. As of 5/13/93, 57 OSROs have applied for classification, 42 of which have received interim classifications. Guidance to the public in the form of a Navigation and Vessel Inspection Circular (NVIC) was published on 12/4/92. The first Oil Spill Removal Organization (OSRO) site visit was completed week of 5/24/93. Final classification is dependent upon completion of site visits to each of the networked contractors.

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#91 Sec. 4202 Equipment Standardization

ABSTRACT: This project provides for a USCG effort to develop consensus standards through the American Society of Testing and Materials for terminology, guidelines, recommended practices, equipment test methods, material, and design specifications for spill response equipment.

CONGRESSIONAL DUE DATE: NONE

STATUS: 17 standards are in some state of development, revision, or balloting.

A new Subcommittee on Beach Cleanup, F20.17, has been formed to develop consensus standards for beach cleanup decision-making.

Subcommittee F20.21 will address the subject of response training.

Final standards should be complete in late 1993 on boom selection, skimmer testing, environmental descriptors, and boom definitions, all four of which have significance for the vessel and facility response plan final rules. Upon final approval and publishing of the standards it will be proposed that they be adopted in the Facility Response Plan and Vessel Response Plan rules in place of the existing information in the interim final rules.

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#81 Double Hull Studies

ABSTRACT: Studies are being conducted to support the regulation required by Section 4115(a). These include:

(1) Evaluation of configurations, construction, and structural systems of double hull tank vessels. The objective of this task was to provide technical expertise in the preparation of U.S. position papers for presentation at the International Maritime Organization. The David Taylor Research Center (DTRC) provided technical support to the Coast Guard on issues such as structural arrangements of double hull tankers, alternative tank arrangements, oil outflow after damage, intact stability, and the energy absorption characteristics of double hull tankers in groundings and collisions.

(2) Strength and structure of double hull tankers. This study investigated the strength of double hull vessels including the energy absorbing nature of the inner hull. Some phases were performed by DTRC.

CONGRESSIONAL DUE DATE: None

STATUS: Most tasks have been completed. Joint Industry Project w/ Mass Institute of Technology (MIT) on energy absorbing characteristics of double hull designs scheduled for completion in FY 95.

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#49 Sec. 4202(a) Spill Response Equipment Database

ABSTRACT: OPA 90 amends subsection (j) of section 311 of the Federal Water Pollution Control Act (33 USC 1321(j)) and directs the Coast Guard to compile and maintain a comprehensive computer list of spill removal resources, personnel, and equipment that is available worldwide and within pre-designated areas.

CONGRESSIONAL DUE DATE: None

STATUS: Final version of the data collection program was received. Coast Guard is producing 1,000 copies of the program, approximately 700 of which were mailed out to resource holders. The database software to drive the program was delivered in June 1993. The National Strike Force Coordination Center will then be able to immediately begin loading collection diskettes received back from the resource holders. The "bulletin board" should be operational in July 1993.

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#89 Sec. 3004 International Inventory of
Removal Equipment and Personnel

ABSTRACT: OPA 90 directs the President to encourage appropriate international organizations to establish an international inventory of spill removal equipment and personnel.

CONGRESSIONAL DUE DATE: None

STATUS: The National Strike Force Coordination Center (NSFCC) is querying the international community to develop this data base. This effort is in conjunction with Project #49.

NEW OPA MAXIMUM FINES

(122) SENATOR LAUTENBERG: The Oil Pollution Act was enacted into law almost three years ago. In last year's Senate report, we noted that while maximum pollution fines were significantly increased under the Oil Pollution Act, the Coast Guard was not recommending or assessing fines at the higher levels called for in the Act. Do you believe that your hearing officers are now setting fines in accordance with the expectations of the Oil Pollution Act?

ADMIRAL KIME: Overall, we have seen a significant increase in the amount of civil penalties assessed and collected under OPA90. The amount of civil penalties collected for OPA90 violations has increased from $1,865,000 for 2,357 civil penalty cases in FY 91 to $3,942,000 for 3,660 civil penalty cases in FY 92. We are striving to ensure that the assessment of civil penalties reflects the goals and intent articulated by Congress in the enforcement provision enacted. Amendments to Section 311 Federal Water Pollution Control Act (FWPCA) made by OPA90 raised the maximum penalty limitations and created a tiered administrative and judicial penalty structure, providing the Coast Guard increased authority to assess stiffer penalties in appropriate cases. The intentions and expectations of Congress in enacting these laws are to increase the assessments in civil penalties to a level sufficient to deter public violations of the statutory and regulatory requirements. While we are moving in the direction of this intent, we haven't reached the full measure of these expectations. We will continue pursuing improvement in our civil penalty process to meet the expectations of OPA90 and other relevant statutes.

DISSEMINATION OF OPA GUIDANCE

(123) SENATOR LAUTENBERG: You stated in your verbal remarks that, at your demand, the Chief Counsel will finally be distributing guidance regarding OPA 90 to your hearing officers by July 1, 1993. Please provide a copy of this guidance to the subcommittee no later than July 2, 1993.

ADMIRAL KIME: The instruction governing hearing officer procedures has been revised and will be issued shortly. While not limited in application to specific statutes, the guidance will improve consistency in penalty assessment.

(124) SENATOR LAUTENBERG: Do you think it acceptable that this guidance will finally go out to your hearing officers barely in time for the third anniversary of the enactment of OPA 90?

ADMIRAL KIME: As stated in testimony, we can do better in developing guidance on the civil penalty process. We certainly intended to promulgate the revised guidance for Hearing Officers much sooner after enactment of the Oil Pollution Act of 1990 (OPA 90) than has been the case. When OPA 90 was enacted, there was guidance in place for program and enforcement personnel (COMTDINST 16200.3) which included guidelines for recommended penalty amounts; and there was also guidance to Hearing Officers (COMDTINST M16200.5) for processing civil penalty cases. Both of these required updating as a result of this new law and other changes.

The guidance for enforcement personnel was addressed first. This new guidance (COMDTINST 16200.3A), which was issued in October 1992, updated the guidelines which enforcement personnel use in determining recommended penalty amounts for various environmental pollution and safety violations. Copies of this guidance were also provided to the Hearing Officers to ensure they were aware of the new guidelines for recommended penalties in the cases that would be forwarded to them for decision.

Updated guidance for Hearing Officers was tackled next; draft guidance has been submitted in response to question #161. This guidance provides additional policy guidelines to ensure that the Hearing Officers execute their duties in a manner that provides national consistency in the Coast Guard's administration of civil penalties.

Implemenation of OPA 90 remains among the Coast Guard's highest priorities. We still continue to apply all aspects of the Act to further National transportation and environmental goals.

(125) SENATOR LAUTENBERG: What prior deadlines were established for the dissemination of this guidance? What explanation can you offer as to why these guidelines have not gone out to date?

ADMIRAL KIME: Because of its length, the guidance governing hearing officer procedures is a manual, which has no expiration. The previous version was promulgated in 1988, and has remained in effect since that time. Although no official deadline was set, guidance was planned for issue in January 1993. Issuance will be made shortly, following approval of the revised document.

(126) SENATOR LAUTENBERG: You stated in your verbal remarks that the Chief Counsel has brought in a number of hearing officers from the field to help develop specific guidelines regarding OPA 90. Why is it necessary to bring in the hearing officers to develop this guidance? Isn't there adequate expertise in the Office of the Chief Counsel to do this?

ADMIRAL KIME: A top priority of the civil penalty program is to improve consistency of penalty assessment. Bringing together the Chief Counsel staff and all senior hearing officers had a two-fold purpose: both to develop the new guidance on civil penalty assessment procedures and to enable the enforcement program managers to discuss the interface between the enforcement and adjudicative portions of the civil penalty process. This teamwork approach is in line with our commitment to principles of Total Quality Management.

(127) SENATOR LAUTENBERG: Who in the Office of the Chief Counsel oversees the hearing officers and attempts to provide some quality control to their work across the entire Coast Guard?

ADMIRAL KIME: The Maritime and International Law Division (G-LMI) in the Office of Chief Counsel provides program oversight of the hearing officers. G-LMI is currently developing measures of effectiveness (MOEs) to better evaluate the penalty assessment process. These MOEse encompass several elements of the Civil Penalty process including fairness (percentage of letters upheld, etc.) and timeliness (elapsed time from violation to case closure, etc.). When finalized and approved, a copy will be provided to the Committee.

Additionally, G-LMI will monitor the penalty assessment process and identify areas for improvement, through periodic analysis of Marine Safety Information System (MSIS) data and reports.

(128) SENATOR LAUTENBERG: Does anyone in the Coast Guard review on a

regular basis the penalties assessed by the hearing officers to ensure some level of uniformity, as well as to ensure that the hearing officers are following the guidance of the Commandant regarding the assessment of penalties, no matter how outdated the guidance? Who currently is responsible for such efforts in the Coast Guard?

ADMIRAL KIME: We have developed comprehensive data matrices to enable us to analyze enforcement and civil penalty activities on a quarterly basis. The new enforcement guidance issued October 1992 provides recommended penalties that reflect the seriousness of these types of violations. New guidance for the hearing officers emphasizes the need for consistency of penalty assessment nationwide, to the extent practicable. In its role as program overseer of the hearing officers, the Maritime and International Law Division (G-LMI) in the Office of Chief Counsel will continue to analyze both enforcement and civil penalty activities to evaluate timeliness, size, and consistency of the civil penalties. Additionally, staff will evaluate problem areas and determine the need for additional guidance for improvement.

(129) SENATOR LAUTENBERG: How has the Commandant's Total Quality Management (TQM) impacted the hearing officers and the civil penalty process as it affects hearing officers?

ADMIRAL KIME: The hearing officer community has put the principles of TQM to work in developing a common vision statement for all hearing offices and in developing means of assessing the effectiveness of the penalty adjudication process. The hearing officers meet on a periodic basis to focus on key issues and to identify potential solutions to problems and potential improvements to processes. The hearing officers also regularly confer with their customers (including their program management in G-LMI) to better understand their needs and concerns and tailor their approaches accordingly. Program management also works together with the hearing officers when addressing and making needed changes to the process; resulting not only in production of a better end "product" but ensuring full understanding and cooperation from those responsible for executing the revised process. For example: TQM principles in play were critical to the success of refining the reporting requirements from the Marine Safety and hearing offices. The result was availability of better management data which will enable program management to more effectively direct these activities and insure steady progress toward our end goal of reducing civil penalty violations by steady and consistent enforcement for civil penalty violations.

(130) SENATOR LAUTENBERG: Who in the chain of command commonly fills out the fitness reports of the hearing officers? Is it customary for that individual to consider the degree to which hearing officers have followed relevant guidance in the assessment of civil penalties when filling out said fitness reports?

ADMIRAL KIME: The Area Commanders act as the reporting officers/reviewers for the hearing officers' Officer Evaluation Reports (OERs). All aspects relating to the hearing officers' performance of their duties are considered in preparing OERs in accordance with recognized standards.

(131) SENATOR LAUTENBERG: What formalized procedures currently exist, if any, to enable hearing officers to communicate with Officers in Charge of Marine Inspections (OCMIs) and boarding officers to advise them on how to better prepare cases that are being forwarded to hearing officers for a penalty?

ADMIRAL KIME: Hearing officers provide both formal and informal training on the penalty assessment process and case preparation. Hearing officers routinely make a presentation to all entry-level personnel undergoing marine safety training at RTC Yorktown, both enlisted and officer (including boarding officers). This training is reinforced and expanded upon when hearing officers meet with district enforcement staffs to provide information and answer questions while on-site for other official business. Commanding Officers from Groups and Marine Safety offices, including OCMIs, hear more advice from hearing officers in the area of the penalty assessment process and case preparation during annual district Commanding Officer meetings.

OPA 90 FACILITY RESPONSE PLANS

(132) SENATOR LAUTENBERG: It has been three months since all shore facilities that handle oil have been required to submit their response plans for review by the Coast Guard. What can you report to us as to the thoroughness and adequacy of these response plans?

ADMIRAL KIME: The facility response plans submitted to date have generally been of high quality and thorough in addressing the risks posed by that facility. This is reflected in the fact that less than 5 percent of the plans were rejected.

Of the more than 95 percent that were acceptable, more than half required no corrections, and the remainder generally required only minor technical corrections.

In an effort to enhance the effectiveness of these regulations, we have adopted the approach of working with the industry to help them understand the requirements, to identify potential response plan shortcomings, and to bring facilities into full compliance with the law.

(133) SENATOR LAUTENBERG: What percentage of these plans have you rejected to date?

ADMIRAL KIME: The Coast Guard has rejected less than five percent of OPA 90 Facility Response Plans.

(134) SENATOR LAUTENBERG: Did you get 100 percent compliance with the deadline to submit these response plans?

ADMIRAL KIME: Response Plans were required after February 18, 1993. At that time, about 80 percent of the nation's marine transportation-related (MTR) facilities had submitted response plans. However, those facilities which had not submitted a plan by February 18, were not in violation of the law unless they engaged in handling, transporting or storing oil. In certain areas of the U.S., seasonal facilities were not in operation in February. Additionally, many of the smaller operators, particularly the mobile facilities, elected not to conduct marine related operations until they were able to prepare and submit their plans.

We are actively enforcing OPA 90 response plan requirements and, at present, 95 percent of the nation's MTR facilities have submitted response plans.

(135) SENATOR LAUTENBERG: Based on response plans you have received, does it appear that the industry thoroughly understands their responsibilities under the new act, and have developed appropriate response plans in accordance with the requirements of the act?

ADMIRAL KIME: Based upon our preliminary review of the response plans submitted, the industry throughly understands their OPA 90 responsibilities. They have developed plans appropriate to the risks posed by the possible discharge of oil from their facility into the navigable waters or adjoining shoreline. This is especially true of the owners and operators of facilities that could be expected to cause significant harm to the environment. In fact, less than half of the plans submitted required any corrections. Of those plans requiring corrections, most only required minor technical modifications.

We have seen a marked desire by the industry to ensure that their employees are aware of the response plan and the roles and responsibilities established by the plan. A number of facilities actively exercised their plans even before the August 18, 1993 compliance date.

(136) SENATOR LAUTENBERG: What is your deadline for completing review of these plans? What is the date beyond which facilities without approved plans will not be allowed to operate?

ADMIRAL KIME: Our deadline for complete review of facility response plans is July 15, 1994. We are presently conducting a preliminary review of all of the response plans submitted, to ensure the plan's general compliance with the statutory provisions of the Oil Pollution Act of 1990 (OPA 90). The preliminary review will be completed in early July 1993. This will provide sufficient time for the Coast Guard to review any revisions that are required of the owner or operator, prior to August 18, 1993.

There are two dates that come into play regarding facility operations and approved plans. Facilities are required to be operating in compliance with their approved plans after August 18, 1993. However, OPA 90 provides for a facility to be authorized to continue to operate without an approved plan for up to two years from the date the plan was submitted if the owner or operator certifies, in writing, to the Coast Guard Captain of the Port (COTP) where that facility is located; that the owner or operator has ensured, by means as described in the regulations the availability of personnel and equipment to respond to a worst case discharge from the facility.

After August 18, 1993, facilities that have not either received approval of their plan or authorization from the COTP to operate under the provisions of their submitted plan will be prohibited from the handling, storing, or transporting oil.

OPA 90 VESSEL RESPONSE PLANS

(137) SENATOR LAUTENBERG: Three months from now, all vessels transporting oil in U.S. waters will be required to comply with their response plans submitted to the Coast Guard. Have you found that the ship operators now have an adequate understanding of their responsibilities under the Act, and will be in compliance with their plans on time and in accordance with the requirements of your regulations?

ADMIRAL KIME: Ship owners and operators have a clear understanding of their responsibilities under the Oil Pollution Act of 1990 (OPA 90); with over 1400 plans submitted, only 22 primary oil carrier plans have been rejected. The primary reason these plans were rejected is that they were submitted as model plans and did not contain information regarding a worst case discharge. There have also been approximately 100 secondary oil carrier response plans rejected. These plans were predominantly rejected because they failed to identify response resources for their area of operations. These operators are in the process of correcting their plans, and are expected to be in compliance well before the August 18, 1993 deadline.

This does not mean that all vessel response plans will have received approval by that date. The Vessel Response Plan regulations permit a vessel owner or operator to operate in accordance with their submitted plan, for up to two years from the date the plan was submitted. To receive this authorization, they have to certify to the Coast Guard, in writing, that they have ensured, by contract or other approved means, the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or substantial threat of such a discharge from their vessel.

We have seen a desire by the industry to ensure that their vessels and crew are aware of the response plan and responsibilities established by the plan. In addition, we are aware of vessels actively exercising their plans, including the vessels' crews and shore management teams.

(138) SENATOR LAUTENBERG: In regard to your plans for approval of vessel response plans, please provide in greater detail the two-step process by which you will be approving or disapproving such plans.

ADMIRAL KIME: In the first step, a preliminary response plan review is conducted to determine if those elements specifically prescribed by the Oil Pollution Act of 1990 (OPA 90) are present. During this initial review, the following items are checked: (1) the plan is arranged in the specified order or is cross-indexed, (2) the plan has spelled out the notification procedures, (3) the qualified individual and alternate qualified individual are identified (by name), (4) the worst case discharge is not significantly underestimated, (5) the owner/operator has identified the resources to respond to a worst case discharge (at this point the reviewer will not be calculating the response capability of the resources), and (6) the plan describes required training and drills.

In the initial review, there is only a cursory review of the information required to be in the six areas specified above as the intent is to ensure that certain critical areas have been addressed in the plan. The goal of this process is to bring the plan into a degree of compliance that will allow the Coast Guard to provide a letter allowing the owner or operator to continue operating under the submitted plan for up to two years, as provided by OPA 90, while a more detailed review is conducted. It will be during the detailed review for approval that the content of the plan will be examined for its adequacy.

If a plan does not pass the initial review, consideration is given as to the severity of the deficiency. Unless the plan fails to have identified contracted resources for response to a worst case discharge, or fails to identify a qualified individual, it is expected that the owner or operator will be advised of the deficiencies noted and provided sufficient time to correct them. In those cases where the deficiency is considered to be of such a nature as to not meet the statutory requirements, or is so otherwise flawed as to make the plan useless, the owner of operator will be so informed and further advised that his or her vessel is prohibited from handling, storing, or transporting oil until such time as the deficiencies corrected and the plan resubmitted.

Plans that have passed the preliminary review and have received a two year operating authorization will be slated for a detailed review for approval. The plans are slated to be reviewed in the order in which they were received. If deficiencies are noted during this review, the Coast Guard will provide the owner or operator with a letter detailing the deficiencies and outlining the necessary changes. This letter will specify how long the owner or operator has to correct the deficiencies. The time provided for correction will normally be based upon the seriousness of the deficiency and the anticipated difficulty in making the required changes. Generally, 30 to 60 days would be considered an appropriate length of time to correct deficiencies noted at this level of review. As was mentioned earlier, these plans are for the use of the owner or operator in responding to an incident. Accordingly, the Coast Guard is also willing to meet with owners or operators to discuss the concept and rationale used by the owner or operator in the development of his or her plan, especially in those instances where the Coast Guard's review has indicated that they feel a deficiency exists in the plan.

If the deficiencies still exist on resubmission, the Coast Guard will need to determine whether the two year operating authorization has expired or should be continued.

If no deficiencies are noted during the review for approval, or when a plan is returned with all deficiencies corrected, the Coast Guard will issue an approval letter for that plan. Approval letters will be issued to each vessel listed within a plan and will be effective for up to 5 years from date of the original plan submission.

(139) SENATOR LAUTENBERG: Your deadline for the approval of the first step appears to be August of this year. What is your deadline for approving the response plans after the more detailed review that you expect to conduct, which would lead to 5-year approval?

ADMIRAL KIME: We are presently conducting a preliminary review of all of the response plans submitted, to ensure the plan's general compliance with the statutory provisions of the Oil Pollution Act of 1990 (OPA 90). The preliminary review stage will be completed in the first part of July 1993. This will provide sufficient time for the Coast Guard to review any revisions, that were required of the owner or operator, prior to August 18, 1993.

Vessels are required to comply with their approved plans after August 18, 1993. OPA 90 does provide for a vessel to be authorized to continue operations without an approved plan for up to two years from the date the plan was submitted. To receive this authorization, the owner or operator must certify, in writing, to the Coast Guard that the owner or operator has ensured, by contract or other approved means as described in the regulations, the availability of the necessary private personnel and equipment to respond, to the maximum extent practicable to a worst case discharge or substantial threat of such a discharge from the vessel. Based upon the vessel owner's or operator's certification, and a satisfactory preliminary review of the plan, we intend to provide the owner or operator with authorization to operate in accordance with their submitted plan, pending the plan's approval. For the majority of the vessels having submitted a plan, this will allow them to operate until February 17, 1995. After August 18, 1993, vessels that have not either received approval of their plan or authorization from the Coast Guard to operate under the provisions of their submitted plan will be prohibited from the handling, storing, or transporting of oil.

Plans that have passed the preliminary review will be slated for a detailed review for approval. The plans are slated to be reviewed in the order in which they were received. At present, we intend to complete the detailed review of all of the vessel response plans received as of August 18, 1993 by July 15, 1994.

MARPOL ANNEX V

(140) SENATOR LAUTENBERG: Please provide the results of the various "Operation Overboard" efforts conducted throughout the past year. How many of these and similar operations were conducted? How many incidents of violation were detected? What was the total cost of conducting these operations? When and where do you intend to conduct future similar operations? Will the frequency of future similar operations be increased/decreased? Of the incidents detected, what enforcement action resulted?

ADMIRAL KIME: Two such operations were conducted in the past year. Operation Overboard was conducted in February 1993 off the southeast coast of Florida. The operation resulted in the detection of violations from four vessels. The operation concentrated on the detection of MARPOL Annex I violations, but was prepared to respond to violations of the other Annexs if observed. Operation Angel Eye was conducted off the coast of southern California in March/April 1993. MARPOL Annex V violations were the primary target of this operation. No violations were detected during operation Angel Eye. The approximate combined cost of these two operations was $32,000 for Coast Guard operations.

At this time two "Operation Overboard" operations are planned for this CY. The specific dates and locations of these enforcement operations cannot be provided here for reason of operational security.

The Coast Guard will assess the need for future operations of this nature based on the results of the planned operations and the level of compliance noted during routine contact with vessels and facilities.

Of the cases detected during Operation Overboard, one case was referred to the U.S. Attorney and the other three are being processed and may go either to the U.S. Attorney, be handled by the civil penalty process, forwarded to the flag state for action, or closed without penalty action, depending on an assessment of the evidence.

(141) SENATOR LAUTENBERG: Please provide your most updated MARPOL Annex V violation list covering FY 1992 and FY 1993 for both domestic and foreign flag vessels, broken out by each Coast Guard COTP zone. Also provide the related status of any civil penalty or other legal action taken for each violation, the status of those violations referred to the Department of State, and the enforcement actions taken by the relevant flag State.

ADMIRAL KIME: The attached list includes MARPOL Annex V violations covering FY 1992 and a portion of FY 1993, totaling 234 cases. The cases are sorted by Coast Guard Captain of the Port (COTP) zone and divided into two tables: Annex V violation cases prosecuted by the Coast Guard (132), and Annex V violation cases referred to flag States for enforcement action (102). Data on Coast Guard prosecuted cases is available only through the first quarter of FY 1993, with the attached list ranging from 10/1/91 - 12/31/92. Data on MARPOL V cases forwarded to flag States covers the first two quarters of FY 1993, with the attached list ranging from 10/1/91 - 4/13/93. On the table listing Coast Guard prosecuted cases, if a unit is listed as a district (i.e. D-17 means the Seventeenth Coast Guard District), then the violation was reported directly to the district and district staff processed the case. If there is a number 4100 after the district symbol, then the violation was the result of a boarding from a Coast Guard vessel. All noted assessments listed under "case action" are actions taken by the United States. On the table listing flag State referral cases, the heading "boarding unit" includes COTP zone and - if the violation was initiated by Department of Agriculture inspectors - the APHIS (Animal and Plant Health Inspection Service) office involved.

As of July 1992, the Coast Guard began taking enforcement action under U.S. law, including referral to the Department of Justice, for all suspected MARPOL V violations that have occurred in the U.S. Exclusive Economic Zone. Prior to July, policy was to forward cases involving vessels of signatory nations to the flag State administration for investigation and enforcement. The policy shift was made as a result of a lack of sufficient information from flag States about whether action was being taken.

FY 92 AND FY 93 MARPOL ANNEX V VIOLATIONS PROSECUTED BY THE U.S. COAST GUARD

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
11/26/91	KAREN C	PANAMA	CLOSED AT UNIT	1	COTP LONG ISLAND SOUND
10/26/91	PRESIDENTE FREI	PANAMA	CLOSED AT UNIT	1	COTP NEW YORK
11/21/91	PRESIDENTE AGUIRRE .CERDA	BAHAMAS	CLOSED AT DISTRICT	1	COTP NEW YORK
12/03/91	PELICAN ARROW	BAHAMAS	CLOSED AT DISTRICT	1	COTP NEW YORK
11/25/91	PANAM QUERIDA	PANAMA	CLOSED AT UNIT	1	COTP NEW YORK
1/8/92	BALIKESIR	TURKEY	CLOSED AT UNIT	1	COTP NEW YORK
5/11/92	BALIKESIR	TURKEY	CLOSED AT UNIT	1	COTP NEW YORK
4/2/92	SCARAB	DENMARK	CLOSED AT UNIT	1	COTP NEW YORK
12/7/92	CROWN JEWEL	PANAMA	AT UNIT	1	MIO NEW YORK CITY
2/26/92	CAPETAN M	MALTA	AT UNIT	1	MSO BOSTON
4/28/92	NORCAN	NORWAY	AT UNIT	1	MSO BOSTON
3/10/92	PALIMA	PANAMA	AT UNIT	1	MSO BOSTON
10/26/92	NANTUCKET CLIPPER	US	ASSESSED $10,000	1	MSO PORTLAND, ME

DATE	VESSEL_NAME	FLAG	CASE_ACTION	DISTRICT	UNIT
12/11/91	MISSISSIPPI BELLE II	US	AT UNIT	2	MSD DAVENPORT, IA
11/06/91	TWO BROTHERS	US	ASSESSED $1,000	5	MSO HAMPTON ROADS
10/23/92	LADY JANICE	US	ASSESSED $10,000	5	MSO HAMPTON ROADS
10/07/91	HOLMON	SWEDEN	AT UNIT	5	MSO PHILADELPHIA
10/21/91	MIGHTIOUS	PANAMA	AT UNIT	5	MSO PHILADELPHIA
10/10/91	ENGLISH STAR	UK	AT UNIT	5	MSO PHILADELPHIA
11/04/91	CUMBRIAN EXPRESS	PANAMA	CLOSED AT UNIT	5	MSO PHILADELPHIA
10/11/91	INDEPENDENT PURSUIT	GERMANY	AT UNIT	5	MSO PHILADELPHIA
1/23/92	NAVIOS VALOR	LIBERIA	AT UNIT	5	MSO PHILADELPHIA
2/18/92	KOALA	LIBERIA	AT UNIT	5	MSO PHILADELPHIA
2/18/92	KOALA	LIBERIA	AT UNIT	5	MSO PHILADELPHIA
11/3/92	CROWN JEWEL	PANAMA	ASSESSED $25,000	5	MSO PHILADELPHIA
8/25/92	JOHN LYKES	US	ASSESSED $5,000	5	MSO WILMINGTON
8/31/92	MINI LAP	GREECE	ASSESSED $10,000	5	MSO WILMINGTON
9/29/92	MSC ALEXANDRA	PANAMA	CLOSED AT DISTRICT	5	MSO WILMINGTON

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
9/10/92	GOLD BOND CONVEYOR	LIBERIA	AT UNIT	5	MSO WILMINGTON
8/31/92	BALIKESIR	TURKEY	ASSESSED $10,000	5	MSO WILMINGTON
8/12/92	JOVIALITY	LIBERIA	ASSESSED $10,000	5	MSO WILMINGTON
8/31/92	ALBERTO SAVARESE	MALTA	ASSESSED $10,000	5	MSO WILMINGTON
8/26/92	RAG DOLL	US	ASSESSED $200	7	D-7 (b) 4100
9/11/92	ORIENT STAR	LIBERIA	AT DISTRICT	7	MSO CHARLESTON
10/26/92	BROUWERSGRACHT	VANUATU	AT DISTRICT	7	MSO CHARLESTON
10/06/91	WESTERN FUTURE	PHILIPPINES	CLOSED AT DISTRICT	7	MSO JACKSONVILLE
10/03/91	FANTASY	LIBERIA	CLOSED AT DISTRICT	7	MSO JACKSONVILLE
5/20/92	LU XAN	CHINA	CLOSED AT UNIT	7	MSO JACKSONVILLE
2/14/92	FL3294CT	US	AT DISTRICT	7	MSO MIAMI
7/6/92	KEY BISCAYNE	BAHAMAS	AT UNIT	7	MSO MIAMI
9/24/92	SEABREEZE I	PANAMA	REFERRED TO U.S. ATTORNEY	7	MSO MIAMI
12/17/92	SEABREEZE I	PANAMA	REFERRED TO U.S. ATTORNEY	7	MSO MIAMI

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
12/29/92	SEABREEZE I	PANAMA	REFERRED TO U.S. ATTORNEY	7	MSO MIAMI
11/30/92	CELEBRATION	LIBERIA	ASSESSED $10,000	7	MSO MIAMI
10/25/91	REGAL PRINCESS	LIBERIA	DOJ ASSESSED $500,000	7	MSO MIAMI
11/08/91	GALIZANO	CAYMAN ISLANDS	CLOSED AT UNIT	7	MSO SAN JUAN
1/11/92	CARLA COSTA	ITALY	CLOSED AT UNIT	7	MSO SAN JUAN
3/5/92	GALIZANO	CAYMAN ISLANDS	CLOSED AT UNIT	7	MSO SAN JUAN
8/28/92	EARNEST L WILSON	US	AT UNIT	7	MSO SAVANNAH
11/26/91	CAP TRIUNFO	PANAMA	ASSESSED $5,000	7	MSO TAMPA
4/30/92	HONOLULU	NETHERLANDS	ASSESSED $5,000	7	MSO TAMPA
4/29/92	BIYO MARU	JAPAN	ASSESSED $5,000	7	MSO TAMPA
10/15/92	SEA PEACE	US	ASSESSED $5,000	7	MSO TAMPA
9/9/92	RAG DOLL	US	ASSESSED $500	7	MSO TAMPA
10/30/91	PERSEVERANCE I	US	ASSESSED $50	8	D-8 (m) (4100)
12/24/92	PRIMATIST	PANAMA	HO DISMISSED W/O PRED	8	MSD BROWNSVILLE
2/10/92	CALIFORNIA	US	WARNING	8	MSO CORPUS CHRISTI

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
6/4/92	LUPITA	US	AT DISTRICT	8	MSO CORPUS CHRISTI
4/22/92	STOLT VICTOR	LIBERIA	ASSESSED $1,000	8	MSO CORPUS CHRISTI
2/8/92	FEDERAL INGER	NORWAY	AT HEARING OFFICER	8	MSO CORPUS CHRISTI
10/8/92	TX 9376 FS	US	AT DISTRICT	8	MSO CORPUS CHRISTI
2/11/92	POKOJ	POLAND	CLOSED AT UNIT	8	MSO HOUSTON
7/1/92	BAKRI ADVENTURER	PANAMA	ASSESSED $5,000	8	MSO HOUSTON
2/7/92	ICE PEARL	CYPRUS	ASSESSED $2,000	8	MSO MOBILE
3/5/92	STAR CEBU	PHILLIPINES	ASSESSED $2,500	8	MSO MOBILE
2/3/92	MARITIME FRIEND	PANAMA	CLOSED AT UNIT	8	MSO MOBILE
12/14/92	BAYSIDE	BAHAMAS	AT DISTRICT	8	MSO MOBILE
12/23/92	ATLANTIC SEA	ST VINCENT	AT DISTRICT	8	MSO MOBILE
12/14/92	SUNDERLAND SPIRIT	CYPRUS	AT DISTRICT	8	MSO MOBILE
12/28/92	VIRGINIA RENEE	US	AT UNIT	8	MSO MORGAN CITY
11/16/92	AMERICAN REPUBLIC	US	ASSESSED $200	9	D-9
6/29/92	JO-ELLEN	US	ASSESSED $1,100	11	D-11

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
6/8/92	DAIWA	US	WARNING	11	MSO LA/LB
8/18/92	OCEANIC	US	ASSESSED $20,000	11	MSO LA/LB
11/19/92	JIN HUI	PANAMA	ASSESSED $10,000	11	MSO LA/LB
11/25/92	CF 2758 FG	US	ASSESSED $500	11	MSO SAN DIEGO
1/29/92	ALUMINUM SKIFF	US	CLOSED AT UNIT	13	MSO SEATTLE
12/1/92	PACIFIC VIKING	CANADA	ASSESSED $10,000	13	MSO SEATTLE
12/18/92	EASTWARD HO	CANADA	AT DISTRICT	13	MSO SEATTLE
10/29/92	PACIFIC JOY	US	ASSESSED $20,000	13	MSO SEATTLE
11/14/92	KIMI MARU	JAPAN	AT UNIT	14	MSO GUAM
7/26/92	ALPINE PINK	PHILLIPINES	CLOSED AT UNIT	14	MSO GUAM
10/2/92	SAMSUN BRAVE	SOUTH KOREA	CLOSED AT UNIT	14	MSO GUAM
10/2/92	SAMSUN BRAVE	SOUTH KOREA	WARNING	14	MSO GUAM
8/17/92	YUNG YING NO.232	CHINA	WARNING	14	MSO GUAM
7/13/92	LANKA STAR NO. 1	SRI LANKA	WARNING	14	MSO GUAM
8/17/92	MEITOKO MARU NO. 23	JAPAN	WARNING	14	MSO GUAM

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
9/21/92	YASHIMA MARU NO. 15	JAPAN	WARNING	14	MSO GUAM
7/23/92	LUCKY OCEAN NO. 1	PANAMA	CLOSED AT UNIT	14	MSO GUAM
8/6/92	TONINA	PANAMA	CLOSED AT UNIT	14	MSO GUAM
8/4/92	SAJO OLYMPIA	SOUTH KOREA	ASSESSED $250	14	MSO GUAM
10/28/92	SEA CHASE	PANAMA	WARNING	14	MSO GUAM
7/22/92	DANG DELIMA	PANAMA	HO DISMISSED W/O PRED	14	MSO GUAM
10/27/92	KYOSHIN MARU NO. 8	JAPAN	WARNING	14	MSO GUAM
11/12/92	VASILIY POLESHCHUK	RUSSIA	WARNING	14	MSO GUAM
12/16/92	FULL MOON	US	ASSESSED $10,000	14	MSO HONOLULU
2/7/92	NORTHERN VICTOR	US	ASSESSED $8,000	17	D-17
2/27/92	OLD COLONY	US	ASSESSED $750	17	D-17
2/24/92	ARCTIC TRAWLER	US	ASSESSED $1,000	17	D-17
2/13/92	ALASKA I	US	CLOSED AT DISTRICT	17	D-17
2/24/92	ROYAL ATLANTIC	US	ASSESSED $500	17	D-17
2/25/92	ALASKAN PRIDE	US	WARNING	17	D-17

DATE	VESSEL NAME	FLAG	CASE ACTION	DISTRICT	UNIT
1/2/92	NORTHERN ALASKA	US	ASSESSED $1,000	17	D-17
2/11/92	KEMA SUE	US	ASSESSED $50	17	D-17
2/27/92	CLIPPER SURPRISE	US	ASSESSED $1,500	17	D-17
2/26/92	EMERALD QUEEN	US	ASSESSED $1,500	17	D-17
2/25/92	PACIFIC EXPLORE	US	HO DISMISSED W/O PRED	17	D-17
3/3/92	SAGA SEA	US	ASSESSED $500	17	D-17
7/14/92	NORTHERN EAGLE	US	CLOSED AT DISTRICT	17	D-17
10/04/91	ENDURANCE	US	ASSESSED $500	17	D-17 (m)
3/13/92	UNIMAK ENTERPRISE	US	ASSESSED $10,000	17	MSD KENAI
4/10/92	AMERICAN CLARE	LIBERIA	AT UNIT	17	MSD KENAI
12/21/92	TAI CANG HAI	CHINA	ASSESSED $20,000	17	MSD KENAI
12/18/92	PRINCESS CRUISE, INC.	LIBERIA	WARNING	17	MSO ANCHORAGE
9/6/92	TRIDENT SEAFOODS AKUTAN	US	AT DISTRICT	17	MSO ANCHORAGE
7/12/92	TORM GYDA	LIBERIA	AT UNIT	17	MSO ANCHORAGE
11/3/92	YUKON VIKING	US	ASSESSED $1,000	17	MSO ANCHORAGE

DATE	VESSEL_NAME	FLAG	CASE_ACTION	DISTRICT	UNIT
8/8/92	PENGWIN	US	ASSESSED $1,000	17	MSO ANCHORAGE
10/26/92	ALASKA WARRIOR	US	ASSESSED $5,000	17	MSO ANCHORAGE
9/5/92	POLAR WIND	US	CLOSED AT UNIT	17	MSO ANCHORAGE
11/4/92	WESTERN ENTERPRISE	US	CLOSED AT UNIT	17	MSO ANCHORAGE
11/4/92	WESTERN ENTERPRISE	US	ASSESSED $10,000	17	MSO ANCHORAGE
7/13/92	DEEP PACIFIC	US	CLOSED AT DISTRICT	17	MSO ANCHORAGE
11/9/92	OCEAN ENTERPRISE	US	ASSESSED $5,000	17	MSO ANCHORAGE
11/5/92	PACIFIC SCOUT	US	ASSESSED $5,000	17	MSO ANCHORAGE
11/6/92	PACIFIC SCOUT	US	ASSESSED $25,000	17	MSO ANCHORAGE
11/4/92	HEATHER SEA	US	ASSESSED $2,000	17	MSO ANCHORAGE
7/29/92	MULPHA SIBU	MALAYSIA	WARNING	17	MSO ANCHORAGE
8/24/92	SHORYU	PHILIPINES	CLOSED AT UNIT	17	MSO ANCHORAGE
12/10/92	SHORYU	PHILIPINES	AT UNIT	17	MSO ANCHORAGE
3/19/92	LARA LEE	US	ASSESSED $2,000	17	MSO JUNEAU
7/2/92	REGAL PRINCESS	LIBERIA	AT UNIT	17	MSO JUNEAU

FY 92 AND FY 93 MARPOL ANNEX V CASES REFERRED TO FLAG STATES FOR ENFORCEMENT

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
2/23/93	BAHAMAS IMPROVER	BAHAMAS	LETTER	UNDER INVESTIGATION	7	APHIS PORT EVERGLADES
2/24/93	ODYSSEY	BAHAMAS	LETTER	UNDER INVESTIGATION	7	APHIS PORT EVERGLADES
12/29/92	NEUFELD	ANTIGUA	LETTER	NONE	7	APHIS PORT EVERGLADES MSO MIAMI
1/13/93	CAVALIER I	BAHAMAS	LETTER	UNDER INVESTIGATION	7	APHIS PORT EVERGLADES MSO MIAMI
2/22/93	VANESSA	DENMARK	LETTER	NONE	7	APHIS PORT EVERGLADES MSO MIAMI
6/15/92	ZIM HAIFA	ISRAEL	LETTER	ACKNOWLEDGED ONLY	7	APHIS SAVANNAH MSO SAVANNAH
5/7/92	CROWN FROST	PANAMA	LETTER	NONE	7	APHIS SAVANNAH MSO SAVANNAH

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
3/21/93	ANGELIQUE	MALTA	LETTER	NONE	7	MIAMI APHIS MSO MIAMI
10/22/92	SEAWARD	BAHAMAS	LETTER	UNDER INVESTIGATION	7	MSO MIAMI
11/1/92	DOLPHIN IV	PANAMA	LETTER	NONE	7	MSO MIAMI
10/11/92	ECSTASY	LIBERIA	LETTER	NONE	7	MSO MIAMI
12/8/92	SEABREEZE I	PANAMA	LETTER	NONE	7	MSO MIAMI
2/25/92	STAR PRINCESS	LIBERIA	LETTER	MASTER/CREW EDUCATED	7	MSO SAN JUAN
3/09/92	FIERBINITI	ROMANIA	LETTER	NONE	7	MSO SAN JUAN
4/11/92	EMERALD	NORWAY	LETTER	NONE	7	MSO SAN JUAN

VIO_DATE	VESSEL_NAME	FLAG	NOTIFIED_BY	ACTION_TAKEN	DISTRICT	BOARDING_UNIT
3/14/93	ULJANIK	LIBERIA	LETTER	NONE	7	MSO SAN JUAN
10/2/91	CAP TRIUNFO	PANAMA	LETTER	NONE	7	MSO TAMPA
3/19/92	HONOLULU	NETHERLANDS	LETTER	NONE	7	MSO TAMPA
3/18/92	BIYO MARU	JAPANESE	LETTER	NONE	7	MSO TAMPA
11/5/92	ALAM MEXICO	MALAYSIA	LETTER	NONE	7	MSO TAMPA
9/30/92	AFRICAN EVERGREEN	LIBERIA	LETTER	NONE	7	MSO TAMPA
2/4/92	ALEXANDRAKI	CYPRUS	LETTER	NONE	7	MSO TAMPA
10/11/91	BRITANIS	PANAMA	LETTER	NONE	7	NOT BOARDED

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
8/10/92	FESTIVALE	BAHAMAS	LETTER	FOUND GUILTY/SHIP'S POLICY CHANGED	7	NOT BOARDED
1/11/92	CARLA COSTA	ITALY	LETTER	ACKNOWLEDGED ONLY	7	NOT BOARDED
2/13/92	CORDOBA	MEXICO	LETTER	ACKNOWLEDGED ONLY	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
2/14/92	JOISAFCO II	MEXICO	LETTER	ACKNOWLEDGED ONLY	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
3/9/92	PESCASUR I	MEXICO	LETTER	ACKNOWLEDGED ONLY	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
6/2/92	TODOS SANTOS I	MEXICO	LETTER	NONE	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
6/1/92	CARIBBEAN KING I	MEXICO	LETTER	NONE	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
6/1/92	MARQUEZ V	MEXICO	LETTER	NONE	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI

VIO_DATE	VESSEL_NAME	FLAG	NOTIFIED_BY	ACTION_TAKEN	DISTRICT	BOARDING_UNIT
6/1/92	NELLIE DEL CARMEN	MEXICO	LETTER	NONE	8	APHIS BROWNSVILLE MSO CORPUS CHRISTI
10/11/91	LUCKY FIELD	PANAMA	LETTER	LTR OF REPRIMAND	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
4/1/92	KILCHEM MEDITERRANEAN	BAHAMAS	LETTER	ACKNOWLEDGED ONLY	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
5/31/92	SILVER STAR	MALTA	LETTER	NONE	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
6/29/92	RICH DUCHESS	BAHAMAS	LETTER	INVESTIGATED/NO VIO FOUND	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
8/24/92	UNITED SUNRISE	NORWAY	LETTER	ACKNOWLEDGED ONLY	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
8/22/92	SUPER SERVANT 5	NETHERLANDS	LETTER	UNDER INVESTIGATION	8	APHIS CORPUS CHRISTI MSO CORPUS CHRISTI
2/28/92	SAT MARS	BAHAMAS	LETTER	ACKNOWLEDGED ONLY	8	APHIS HOUSTON MSO HOUSTON

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
5/20/92	CISCO	PANAMA	LETTER	NONE	8	APHIS HOUSTON MSO HOUSTON
4/23/92	ANTIGUA	CYPRUS	LETTER	NONE	8	APHIS HOUSTON MSO HOUSTON
7/14/92	HUALI	LIBERIA	LETTER	FINE APPROX. $200	8	APHIS HOUSTON MSO HOUSTON
3/6/92	PRINSENGRACHT	NETHERLANDS	LETTER	ACKNOWLEDGED ONLY	8	APHIS MOBILE MSO MOBILE
4/29/92	GOLDEN GRAMPUS	LIBERIA	LETTER	FINE	8	APHIS MOBILE MSO MOBILE
8/9/92	CECILIA I	CYPRUS	LETTER	NONE	8	APHIS MOBILE MSO MOBILE
12/21/92	IBN AL NAFESS	QATAR	LETTER	NONE	8	APHIS MOBILE MSO MOBILE
2/5/92	POKOJ	POLAND	LETTER	ACKNOWLEDGED ONLY	8	APHIS PENSACOLA MSO MOBILE

VIO_DATE	VESSEL_NAME	FLAG	NOTIFIED_BY	ACTION_TAKEN	DISTRICT	BOARDING_UNIT
2/3/92	MARITIME FRIENDSHIP	PANAMA	LETTER	LTR OF REPRIMAND	8	APHIS PENSACOLA MSO MOBILE
7/28/92	KLIPPERGRACHT	NETHERLANDS	LETTER	UNDER INVESTIGATION	8	APHIS PENSACOLA MSO MOBILE
2/8/92	NEWAYS	PANAMA	LETTER	ACKNOWLEDGED ONLY	8	APHIS PORT ARTHUR MSO PORT ARTHUR
11/22/91	BELIZE REEFER	HONDURAS	LETTER	NONE	8	MSO CORPUS CHRISTI
5/18/92	DENISH K	BAHAMAS	LETTER	LTR OF REPRIMAND	8	MSO HOUSTON
9/21/92	MAJ SIF	DENMARK	LETTER	NONE	8	MSO MOBILE
10/3/92	CORAL I	PANAMA	LETTER	NONE	8	MSO MOBILE
3/18/93	CHRISTOPHER MARINE	HONDURAS	LETTER	NONE	8	MSO MOBILE

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
9/1/92	EVELYN	ST VINCENT	LETTER	NONE	8	MSO NEW ORLEANS
12/13/91	CROWN ODYSSEY	BAHAMAS	LETTER	ACKNOWLEDGED ONLY	11	MSO LA/LB
5/10/92	SEA DIAMOND	LIBERIA	LETTER	NONE	11	MSO SAN FRANCISCO
2/19/93	NATIONAL HONOR	PHILIPPINES	LETTER	NONE	11	MSO SAN FRANCISCO
10/5/92	STAR EVANGER	NORWAY	LETTER	INVESTIGATED/NO VIO FOUND	13	APHIS PORTLAND, OR MSO PORTLAND, OR
11/7/92	ZHUANGHE	CHINA	LETTER	INVESTIGATED/NO VIO FOUND	13	APHIS SEATTLE MSO PUGET SOUND
2/10/92	HANJIN POHANG	SOUTH KOREA	LETTER	ACKNOWLEDGED ONLY	13	MSO PUGET SOUND
3/18/92	SUN ROSE	LIBERIA	LETTER	FINE APPROX. $200	13	MSO PUGET SOUND

VIO DATE	VESSEL NAME	FLAG	NOTIFIED BY	ACTION TAKEN	DISTRICT	BOARDING UNIT
6/16/92	GRACE ISLAND	LIBERIA	LETTER	FINE APPROX. $200	13	MSO PUGET SOUND
7/1/92	PACIFIC EMERALD	PHILLIPINES	LETTER	NONE	13	MSO PUGET SOUND
4/13/93	SEAFAN	LIBERIA	LETTER	NONE	13	MSO PUGET SOUND

MARPOL ANNEX V

(142) SENATOR LAUTENBERG: What alternate follow-up procedures have been developed within the Department of State to promote enforcement action by flag states and to document those actions?

ADMIRAL KIME: While the Department of State (DOS) may have additional information about their own follow-up procedures, we have specific knowledge of the following activities: The Coast Guard maintains a file of all MARPOL Annex V cases forwarded to flag States through DOS. When the DOS forwards the case, an accompanying cover letter requests that the flag State investigate the case, take enforcement action if appropriate and report back to the United States. The DOS has agreed to forward to Coast Guard headquarters any responses from flag States to MARPOL violation cases forwarded. When received, these responses are included in our case files.

In 1992, the Coast Guard recognized that there was a serious shortcoming in the international MARPOL Annex V reporting regime. Flag States had acknowledged only a fraction of the cases forwarded by the U.S. There were even fewer cases in which flag States reported taking penalty action against suspected vessels. As a result of this poor communication and a lack of aggressive enforcement, the Coast Guard changed its enforcement policy regarding MARPOL V violations against foreign-flagged vessels. As of July 1992, the Coast Guard began taking enforcement action under U.S. law, including, where appropriate, referral to the Department of Justice, for all suspected MARPOL V violations that occurred in the U.S. Exclusive Economic Zone.

The Coast Guard worked with the Department of State to develop this new enforcement policy. The DOS then issued a cable notifying all posts of the new enforcement stance. The United States reported this new policy at the 33rd Session of the International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC) in October 1992. A copy of the MEPC paper is provided below.

accounting of the action taken by foreign flag states against ships that have entered U.S. ports and have been reported in violation of Annex V and Annex III of the MARPOL Treaties, as well as violations of major fisheries treaties and regulations.

ADMIRAL KIME: There have been no reported violations of Annex III. The Annex entered into force on July 1, 1992 and the final rule was published in the Federal Register on November 5, 1992.

Of the 229 Annex V cases referred to flag States since 1990 in accordance with the MARPOL convention, the Coast Guard has received 81 replies. The table below summarizes the replies that were received.

VESSEL	FLAG	DISPOSITION
MERKUR DELTA	Liberia	Acknowledged receipt of case/Took no action
LORAN	Liberia	Vessel fined approximately $250
BRAER	Liberia	Acknowledged receipt of case/Took no action
KEN ISLAND	Liberia	Vessel fined approximately $200
AMERSHAM	Liberia	Vessel issued letter of reprimand
ROYAL ACCORD	Liberia	Vessel fined approximately $200
STAR PRINCESS	Liberia	Master and crew educated on Annex V
SUN ROSE	Liberia	Vessel fined approximately $200
GOLDEN GRAMPUS	Liberia	Master censured/Vessel fined approximately $250
CHARGER	Liberia	Vessel fined approximately $200
HUALI	Liberia	Master censured/Vessel fined approximately $200
PETROBULK RADIANCE	Liberia	Master censured/Vessel fined approximately $250
WANETA	Liberia	Investigating
GRACE ISLAND	Liberia	Vessel fined approximately $200

CELEBRATION	Liberia	No action taken/Vessel changed registry
CELEBRATION	Liberia	No action taken/Vessel changed registry
STOLT ENERGIE	Bahamas	Acknowledged receipt of case/Took no action
TIMUR ENDURANCE	Bahamas	Acknowledged receipt of case/Took no action
SUNNY BLOSSOM	Bahamas	Acknowledged receipt of case/Took no action
MED TRADER	Bahamas	No action taken/New crew and master
SAT MARS	Bahamas	Investigating
FESTIVALE	Bahamas	Vessel found guilty/discharge policy changed
DENISH K	Bahamas	Vessel issued letter of reprimand
RICH DUCHESS	Bahamas	Case dismissed/Insufficient evidence
CROWN ODYSSEY	Bahamas	Acknowledged receipt of case/Took no action
TARGA	Bahamas	Investigating
CAVALIER I	Bahamas	Investigating
SEAWARD	Bahamas	Investigating
KILCHEM MEDITERRANEAN	Bahamas	Investigating
BAHAMAS IMPROVER	Bahamas	Investigating

VESSEL	FLAG	DISPOSITION
SECIL LULO	Bahamas	Investigating
ODYSSEY	Bahamas	Investigating
JUNIOR GRANT I	Panama	Case dismissed/Two years since violation report
CHIOS FAITH	Panama	Vessel issued warning
LUCKY FIELD	Panama	Vessel issued letter of reprimand
ENCHANTED ISLE	Panama	Vessel issued warning
NEWAYS	Panama	Vessel issued letter of reprimand
INAGUA TANIA	Panama	Vessel issued letter of reprimand
MARITIME FRIENDSHIP	Panama	Vessel issued letter of reprimand
CAVALIER	Panama	Vessel fined (500 Balboas)
BLUE FLAME	Panama	No action taken/Vessel changed registry
PALIMA	Panama	Vessel fined an undisclosed amount
OSCO SWORD	Norway	Violation report not substantiated
SAPPHIRE	Norway	Vessel issued written warning
HERMES	Norway	Acknowledged receipt of case/Took no action
TEAM FROSTA	Norway	Acknowledged receipt of case/Took no action
ARROW NIKI	Norway	Dismissed/case dropped due to insufficient funds
MEGA PACIFIC	Norway	Acknowledged receipt of case/Took no action
BROMSGAARD STAR	Norway	Vessel issued warning
PETROBULK SILVERA	Norway	Vessel issued warning
TINGANES	Norway	Acknowledged receipt of case/Took no action
STAR EVANGER	Norway	Case dismissed/Insufficient evidence
NORCAN	Norway	Case dismissed/Insufficient evidence
UNITED SUNRISE	Norway	Acknowledged receipt of case/Took no action
PRINSENGRACHT	Netherlands	Investigating
FRANZISKA	Netherlands	Vessel issued warning
KLIPPERGRACHT	Netherlands	Investigating
SUPER SERVANT 5	Netherlands	Investigating
VILUJO I	Mexico	Acknowledged receipt of case/Took no action
CORDOBA	Mexico	No action taken/Vessel changed registry

JOISAFCO II	Mexico	Acknowledged receipt of case/Took no action
PESCASUR I	Mexico	Investigating
KATHERINE SIF	Denmark	Violation report not substantiated
EVA	Denmark	No action taken/Vessel sold
SKIPPER MOST	Denmark	Vessel issued warning
GEMINY	Vanuatu	Acknowledged receipt of case/Took no action
FUJI ANGEL	Vanuatu	Case dismissed/Master denied
XI HAI	China	No action taken/Master denied report
ZHUANGHE	China	Case dismissed/Insufficient evidence
CHRISTINA I	Cyprus	Vessel fined $150
TERESA O	Philippines	Acknowledged receipt of case/Took no action
GOLFO DE URABA	Colombia	Acknowledged receipt of case/Took no action
ALTER	Malta	Acknowledged receipt of case/Took no action
ARAUCARIA	Chile	Acknowledged receipt of case/Took no action

VESSEL	FLAG	DISPOSITION
COPIHUE	Finland	No action taken/Vessel changed registry
MARIA DOLORES	Spain	Unspecified legal action taken
HANJIN POHANG	South Korea	Disciplinary action taken against crew
POKOJ	Poland	Acknowledged receipt of case/Took no action
ZIM HAIFA	Israel	Acknowledged receipt of case/Took no action
CARLA COSTA	Italy	Acknowledged receipt of case/Took no action
BOHINJ	Yugoslavia	No action taken/Vessel changed registry

In fiscal year 1992 and fiscal year 1993, 25 foreign fishing vessels were found in violation of various provisions of the Magnuson Fishery Conservation and Management Act (MFCMA). These cases were under U.S. jurisdiction and were handled by the appropriate U.S. agency. Thirty foreign flag vessels were found in violation of international agreements regarding high seas driftnet (HSDN) fishing, including the United Nations moratorium on large scale high seas pelagic driftnet fishing which went into effect on January 1, 1993. These cases were referred by the U.S. Coast Guard through the U.S. Department of State to foreign flag states for disposition and are listed below.

VESSEL/CASE	FLAG	DISPOSITION
05/20/92 22 HSDN vessels: GUNYO MARU HOKI MARU NO. 28 HOKOSHIN MARU NO. 68 HOKKO MARU NO. 18 HOKUSHIN MARU NO. 88 KINEI MARU NO. 11 KINSEI MARU NO. 12 KOTOKU MARU NO. 32 MARUHO MARU NO. 21 MIYO MARU NO. 25 NANAYO MARU NO. 63 RYOEI MARU NO. 28 RYOSEI MARU NO. 16 SEIEI MARU NO. 38 SEIRYU MARU NO. 38	Japan	GOJ conducting major investigation involving as many as 88 fishing boats and/or captains. GOJ taking criminal and administrative actions against 12 of the vessels. To date, six masters convicted; awarded prison terms of up to six months. Vessels awarded 20-40 days port confinement.

	SHOHO MARU NO. 21 TAIHO MARU NO. 61 TAISEI MARU NO. 35 TAISEI MARU NO. 55 YOSHIEI MARU NO. 18 YUKO MARU ZUIHO MARU		
07/26/92	2 HSDN vessels	S. Korea	U.S. has not received report of action taken by GOK.
09/14/92	2 HSDN vessels	China	GOC unable to identify vessels; suspects vessels usurping Chinese flag; further enforcement action not taken. Case prompted GOC to seek enforcement agreement with U.S.; negotiations nearly complete.
05/13/93	SARN FA NO. 37	Honduras	U.S. has not received report of action taken by GOH.
05/13/93	YINGYU 601	China	Investigation in progress.
05/13/93	YINGYU 602	China	Investigation in progress.
05/23/93	DAYUANYU 206	Stateless	Formerly registered in China. China confiscated vessel and nets. Penalties or sanctions against master and owner pend investigation results.

(143) SENATOR LAUTENBERG: Please provide a detailed case-by-case accounting of the action taken by foreign flag states against ships that have entered U.S. ports and have been reported in violation of Annex V and Annex III of the MARPOL Treaties, as well as violations of major fisheries treaties and regulations.

ADMIRAL KIME: There have been no reported violations of Annex III. The Annex entered into force on July 1, 1992 and the final rule was published in the Federal Register on November 5, 1992.

Of the 229 Annex V cases referred to flag States since 1990 in accordance with the MARPOL convention, the Coast Guard has received 81 replies. The table below summarizes the replies that were received.

VESSEL	FLAG	DISPOSITION
MERKUR DELTA	Liberia	Acknowledged receipt of case/Took no action
LORAN	Liberia	Vessel fined approximately $250
BRAER	Liberia	Acknowledged receipt of case/Took no action
KEN ISLAND	Liberia	Vessel fined approximately $200
AMERSHAM	Liberia	Vessel issued letter of reprimand
ROYAL ACCORD	Liberia	Vessel fined approximately $200
STAR PRINCESS	Liberia	Master and crew educated on Annex V
SUN ROSE	Liberia	Vessel fined approximately $200
GOLDEN GRAMPUS	Liberia	Master censured/Vessel fined approximately $250
CHARGER	Liberia	Vessel fined approximately $200
HUALI	Liberia	Master censured/Vessel fined approximately $200
PETROBULK RADIANCE	Liberia	Master censured/Vessel fined approximately $250
WANETA	Liberia	Investigating
GRACE ISLAND	Liberia	Vessel fined approximately $200

CELEBRATION	Liberia	No action taken/Vessel changed registry
CELEBRATION	Liberia	No action taken/Vessel changed registry
STOLT ENERGIE	Bahamas	Acknowledged receipt of case/Took no action
TIMUR ENDURANCE	Bahamas	Acknowledged receipt of case/Took no action
SUNNY BLOSSOM	Bahamas	Acknowledged receipt of case/Took no action
MED TRADER	Bahamas	No action taken/New crew and master
SAT MARS	Bahamas	Investigating
FESTIVALE	Bahamas	Vessel found guilty/discharge policy changed
DENISH K	Bahamas	Vessel issued letter of reprimand
RICH DUCHESS	Bahamas	Case dismissed/Insufficient evidence
CROWN ODYSSEY	Bahamas	Acknowledged receipt of case/Took no action
TARGA	Bahamas	Investigating
CAVALIER I	Bahamas	Investigating
SEAWARD	Bahamas	Investigating
KILCHEM MEDITERRANEAN	Bahamas	Investigating
BAHAMAS IMPROVER	Bahamas	Investigating

VESSEL	FLAG	DISPOSITION
SECIL LULO	Bahamas	Investigating
ODYSSEY	Bahamas	Investigating
JUNIOR GRANT I	Panama	Case dismissed/Two years since violation report
CHIOS FAITH	Panama	Vessel issued warning
LUCKY FIELD	Panama	Vessel issued letter of reprimand
ENCHANTED ISLE	Panama	Vessel issued warning
NEWAYS	Panama	Vessel issued letter of reprimand
INAGUA TANIA	Panama	Vessel issued letter of reprimand
MARITIME FRIENDSHIP	Panama	Vessel issued letter of reprimand
CAVALIER	Panama	Vessel fined (500 Balboas)
BLUE FLAME	Panama	No action taken/Vessel changed registry
PALIMA	Panama	Vessel fined an undisclosed amount
OSCO SWORD	Norway	Violation report not substantiated
SAPPHIRE	Norway	Vessel issued written warning
HERMES	Norway	Acknowledged receipt of case/Took no action
TEAM FROSTA	Norway	Acknowledged receipt of case/Took no action
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MEGA PACIFIC	Norway	Acknowledged receipt of case/Took no action
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PETROBULK SILVERA	Norway	Vessel issued warning
TINGANES	Norway	Acknowledged receipt of case/Took no action
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NORCAN	Norway	Case dismissed/Insufficient evidence
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FRANZISKA	Netherlands	Vessel issued warning
KLIPPERGRACHT	Netherlands	Investigating
SUPER SERVANT 5	Netherlands	Investigating
VILUJO I	Mexico	Acknowledged receipt of case/Took no action
CORDOBA	Mexico	No action taken/Vessel changed registry

JOISAFCO II	Mexico	Acknowledged receipt of case/Took no action
PESCASUR I	Mexico	Investigating
KATHERINE SIF	Denmark	Violation report not substantiated
EVA	Denmark	No action taken/Vessel sold
SKIPPER MOST	Denmark	Vessel issued warning
GEMINY	Vanuatu	Acknowledged receipt of case/Took no action
FUJI ANGEL	Vanuatu	Case dismissed/Master denied
XI HAI	China	No action taken/Master denied report
ZHUANGHE	China	Case dismissed/Insufficient evidence
CHRISTINA I	Cyprus	Vessel fined $150
TERESA O	Philippines	Acknowledged receipt of case/Took no action
GOLFO DE URABA	Colombia	Acknowledged receipt of case/Took no action
ALTER	Malta	Acknowledged receipt of case/Took no action
ARAUCARIA	Chile	Acknowledged receipt of case/Took no action

VESSEL	FLAG	DISPOSITION
COPIHUE	Finland	No action taken/Vessel changed registry
MARIA DOLORES	Spain	Unspecified legal action taken
HANJIN POHANG	South Korea	Disciplinary action taken against crew
POKOJ	Poland	Acknowledged receipt of case/Took no action
ZIM HAIFA	Israel	Acknowledged receipt of case/Took no action
CARLA COSTA	Italy	Acknowledged receipt of case/Took no action
BOHINJ	Yugoslavia	No action taken/Vessel changed registry

In fiscal year 1992 and fiscal year 1993, 25 foreign fishing vessels were found in violation of various provisions of the Magnuson Fishery Conservation and Management Act (MFCMA). These cases were under U.S. jurisdiction and were handled by the appropriate U.S. agency. Thirty foreign flag vessels were found in violation of international agreements regarding high seas driftnet (HSDN) fishing, including the United Nations moratorium on large scale high seas pelagic driftnet fishing which went into effect on January 1, 1993. These cases were referred by the U.S. Coast Guard through the U.S. Department of State to foreign flag states for disposition and are listed below.

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05/20/92 22 HSDN vessels: GUNYO MARU HOKI MARU NO. 28 HOKOSHIN MARU NO. 68 HOKKO MARU NO. 18 HOKUSHIN MARU NO. 88 KINEI MARU NO. 11 KINSEI MARU NO. 12 KOTOKU MARU NO. 32 MARUHO MARU NO. 21 MIYO MARU NO. 25 NANAYO MARU NO. 63 RYOEI MARU NO. 28 RYOSEI MARU NO. 16 SEIEI MARU NO. 38	Japan	GOJ conducting major investigation involving as many as 88 fishing boats and/or captains. GOJ taking criminal and administrative actions against 12 of the vessels. To date, six masters convicted; awarded prison terms of up to six months. Vessels awarded 20-40 days port confinement.

	SEIRYU MARU NO. 38 SHOHO MARU NO. 21 TAIHO MARU NO. 61 TAISEI MARU NO. 35 TAISEI MARU NO. 55 YOSHIEI MARU NO. 18 YUKO MARU ZUIHO MARU		
07/26/92	2 HSDN vessels	S. Korea	U.S. has not received report of action taken by GOK.
09/14/92	2 HSDN vessels	China	GOC unable to identify vessels; suspects vessels usurping Chinese flag; further enforcement action not taken. Case prompted GOC to seek enforcement agreement with U.S.; negotiations nearly complete.
05/13/93	SARN FA NO. 37	Honduras	U.S. has not received report of action taken by GOH.
05/13/93	YINGYU 601	China	Investigation in progress.
05/13/93	YINGYU 602	China	Investigation in progress.
05/23/93	DAYUANYU 206	Stateless	Formerly registered in China. China confiscated vessel and nets. Penalties or sanctions against master and owner pend investigation results.

CRIMINAL PROSECUTION OF MARPOL VIOLATIONS BY THE DEPARTMENT OF JUSTICE

(144) SENATOR LAUTENBERG: The Department of Justice recently announced that Princess Cruises has pled guilty to a felony violation of the MARPOL Annex V law and agreed to pay the maximum fine of $500,000. This case stemmed from the efforts of a very diligent cruise ship passenger who videotaped the violation, and continued to call attention to the case despite many frustrations in dealing with the Coast Guard and law enforcement agencies.

How many other cases has the Coast Guard forwarded to the Department of Justice for criminal prosecution of the plastics dumping law?

ADMIRAL KIME: To date we have referred only one case, the M/V REGAL PRINCESS, to the Department of Justice (DOJ) that involved a violation of the plastics dumping law. We do have four other cases pending further investigation and substantiation.

(145) SENATOR LAUTENBERG: Have you found the Justice Department receptive to pursuing criminal violations of MARPOL?

ADMIRAL KIME: Yes, the Department of Justice (DOJ) has been receptive to our efforts to obtain criminal prosecution for violations of MARPOL. Coast Guard District Legal Offices have reported enthusiastic interest on the part of DOJ in prosecuting MARPOL cases. There has been no rejection of case referrals or discussion of referrals; there have been no reports of negative interaction to date.

(146) SENATOR LAUTENBERG: How common should we expect cases such as the Princess Cruises case to be, now that you're beefing up your aircraft and vessel patrols to enforce the MARPOL law?

ADMIRAL KIME: We would hope there are very few of these incidents, however, when the evidence is presented to us we will prosecute them. The high media interest generated by the Princess Cruises Inc. case and Coast Guard's role in this successful prosecution has resulted in a significant increase in the awareness of MARPOL V requirements by the cruise line industry. The increased awareness of the Coast Guard's strong enforcement posture coupled with a more environmentally conscious and active industry will likely result in an increase in cruise line compliance.

(147) SENATOR LAUTENBERG: Should we expect considerably more criminal violations to be prosecuted by the Justice Department in the future?

ADMIRAL KIME: The Coast Guard anticipates discovering more violations of the law as a result of our increased enforcement efforts. The Coast Guard intends to aggressively investigate any violations noted, and refer those cases, where appropriate, to the Justice Department for criminal prosecution. While the number of such referrals is expected to increase in the short term, I expect that our increased enforcement activities should have a deterrent effect on potential violators leading to better compliance, which is our ultimate goal.

RECEPTION FACILITIES

(148) SENATOR LAUTENBERG: Do all port and terminal facilities required to have reception facilities have such facilities? How many times in CY 1992 were vessels denied use of port or terminal facilities where reception facilities required by 33 CFR 151 and 33 CFR 158 were not provided?

ADMIRAL KIME: Ninety two percent of ports and terminals that require Certificates of Adequacy (COA's) for reception facilities have them. In 1992, terminals lacking reception facilites were closed to vessel entry six times.

As of March 1993, there were 2,019 ports or terminals covered by Certificates of Adequacy. Routine Coast Guard inspections and reviews during 1992 identified an additional 174 ports or terminals required to hold COA's for oil, noxious liquid substances (NLS), or garbage. Applications for COA's for 133 of these ports and terminals were being reviewed as of March 1993. The situation with the remaining 41 ports and terminals is being resolved.

None of these ports or terminals ha been reported for inadequacy by mariners seeking facilities. The need for these additional facilities was identified by Coast Guard facility inspectors and MARPOL coordinators. Twelve of these forty-one ports and terminals are in Providence, RI and 27 are in the U.S. Virgin Islands. These areas pose complex problems involving state and local waste management issues. The Coast Guard Captain of the Port in each area is working with the Department of Agriculture's Animal & Plant Health Inspection Service (APHIS) and state and local officials to resolve these issues.

(149) SENATOR LAUTENBERG: Please provide a list by port of all terminals/facilities issued a Certificate of Adequacy.

ADMIRAL KIME: An up-to-date list of all terminals/facilities holding an Annex I, II and/or V Certificate of Adequacy (COA) follows. The Coast Guard publishes this list annually in the Federal Register. The list was last published September 23, 1992.

[CLERK'S NOTE.--Due to its size, the document entitled, ''Terminals/Facilities Holding Annex I, II, and/or V Certificates of Adequacy,'' does not appear in the hearing but is available for review in the subcommittee files.]

(150) SENATOR LAUTENBERG: How many MARPOL Annex V violations have been submitted during CY 1992? Of these violations submitted, how many have been assessed penalties and what is the average penalty assessed?

ADMIRAL KIME: There were 113 MARPOL Annex V violation cases initiated for Coast Guard prosecution in CY 1992. Penalties were assessed in 47 of those cases, totaling $299,050. The average penalty assessed was $6,362. Of the 66 remaining cases: 13 resulted in warnings; three were dismissed; 20 were closed/not proved; and 30 are still under review. Of those under review, three have been referred to the Department of Justice for criminal prosecution.

INCONSISTENT MARPOL VIOLATIONS

(151) SENATOR LAUTENBERG: While some Captains of the Port have inspected and issued certificates of adequacy for all eligible garbage-taking facilities in their zone, others have a large number of facilities that require inspection and the issuance of certificates of adequacy.

What do you think explains this diversity in attention being paid to ensuring the there are adequate waste reception facilities by your Captains of the Port?

ADMIRAL KIME: Our data on MARPOL V facility inspections shows that the vast majority of our units consistently inspect all eligible facilities, and that few eligible facilities have not been issued Certificates Of Adequacy (COA's).

Our data on MARPOL V facilities shows that 90 percent of our 1,242 MARPOL V facilities were inspected during the 12 month period ending February 1993, and that 34 of 39 Captain of the Port zones (COTP's) with MARPOL V facility responsibilities inspected all eligible garbage reception facilities.

We had five COTP's with a total of 118 uninspected facilities. There are a variety of reasons for the uninspected facilities. For example, at MSO Portland, Or, operational demands in oil spill responses required postponing scheduled facility inspection trips to remote operating areas until the spring and summer of 1993. And at MSO Anchorage uninspected facilities have been identified as small commercial fishing facilities that do not require COA's for reception facilities. COA's for these facilities are being revoked. An aggressive schedule of inspections and reviews is now underway. All five units have either completed or are in the process of completing these inspections.

14 COTP's identified 86 additional facilities needing MARPOL V COA'S. 39 of these 86 uncertified facilities are in Providence, RI and the U.S. Virgin Islands, where the Coast Guard COTP's are working to resolve long-standing waste disposal issues which impede the issuance of MARPOL V COA's. A small portion were for new facilities or new operations which changed the status of previously ineligible facilities. New applications for MARPOL V COA's resulted from long-standing efforts by COTP's to foster the establishment of required reception facilities in certain unique areas such as the U.S. Virgin Islands where 13 new applications were issued.

All 86 uncertified facilities needing COA's were identified by MARPOL coordinators in our annual facility inspection and review program. Those new discoveries are the natural result of our new MARPOL coordinators climbing the learning curve and discovering new operations in port areas traditionally unregulated by our Marine Safety offices. Most newly identified facilities are low activity bulk liquid terminals or large fish processing facilities in more remote locations outside of our typical harbor patrol areas. Familiarization with fishing port operations and previously unregulated or remote ports has been a special focus of our MARPOL facility inspection program over the past 12 months, hence the results were expected.

(152) SENATOR LAUTENBERG: While some Captains of the Port have inspected and issued certificates of adequacy for all eligible garbage-taking facilities in their zone, others have a large number of facilities that require inspection and the issuance of certificates of adequacy.

What steps are being taken to rectify this situation?

ADMIRAL KIME: In the 12 month period ending in February 1993 we had 118 uninspected MARPOL V facilities and 86 uncertified facilities which are eligible for MARPOL V Certificates of Adequacy (COA's).

We had five COTP's with uninspected facilities: MSO Portland, OR (25), MSO Anchorage (29), MSO Miami (39), MSO Los Angeles (13), and MSO Duluth (12). An aggressive schedule of inspections and reviews is now underway with all five units having either completed or in the process of completing these unfinished inspections. For example, MSO Portland, OR completed half of their outstanding inspections this spring, and the other half are scheduled for completion this summer. All five of these commands will complete their outstanding inspections by 30 September 1993.

As for the 86 uncertified facilities needing COA's, applications, 47 of these facilities were under review this spring, and COA's should be issued during the summer for all 47, barring any unforeseen obstacles.

The remaining 39 of uncertified facilities are in Providence, RI and the U.S. Virgin Islands, where long-standing waste disposal issues present obstacles to the issuance of MARPOL V COA's. The COTP Providence and COTP San Juan are working with the Department of Agriculture's Animal & Plant Health Inspection Service (APHIS) and state and local officials to resolve these issues.

We are providing feedback on our MARPOL data analysis to all of our districts and Marine Safety Offices, with observations and recommendations for improvement. One general requirement is to conduct semiannual reviews of the status of all MARPOL COA's, including the status of all supporting waste hauler contracts, and to conduct on-site inspections once each year.

(153) SENATOR LAUTENBERG: While some Captains of the Port have inspected and issued certificates of adequacy for all eligible garbage-taking facilities in their zone, others have a large number of facilities that require inspection and the issuance of certificates of adequacy.

By what date to you intend to have all facilities inspected and COA's issued?

ADMIRAL KIME: As for the 118 uninspected facilities, many of the inspection discrepancies have already been corrected during the spring of 1993. We intend to complete any remaining inspections by 30 September 1993, or require a report explaining the reasons why inspection discrepancies remain outstanding.

As for the 86 facilities requiring new COA's, we expect 47 new COA's to be issued this summer upon completion of application reviews. There are 39 other candidates for MARPOL V COA's which pose more serious obstacles involving long-standing waste disposal problems in Providence, RI (12 facilities) and the U.S. Virgin Islands (27 facilities). We have asked MSO Providence to set a strategy to resolve the problem with the 12 facilities in Providence this year. The issues in the U.S. Virgin Islands are more complicated. MSO San Juan is already working a strategy to achieve compliance, and had considerable success early in 1993. We anticipate the issuance of 13 COA's for new garbage reception facilties this year. The remaining 27 facilities are being addressed, but it is not clear that this problem can be resolved in 1993.

MARPOL ENFORCEMENT AND PENALTIES

(154) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks in regard to progress in the area of MARPOL enforcement that the amount of penalty assessments were 61 percent greater following the distribution of new guidelines and instructions to your marine safety office personnel. Please provide the relevant support data for this observation.

ADMIRAL KIME: In my testimony I was referring to the change in all recorded civil penalty cases, of which MARPOL cases are a subset. Recommended penalty assessments increased 61% after the guidelines were implemented.

This calculation was based on data taken from the MSIS data base on April 15, 1993. It uses October 16, 1992 as the reference date for BEFORE guideline implementation. The increase focuses on the percentage of the average per-case penalty recommended before October 16 compared to the average per-case penalty recommended after this point in time, up until April 15, 1993. The following table presents the basis of this percentage increase:

FY92-1QTRFY93: RECOMMENDED PENALTIES PROCESSED AS OF 15APR93

	BEFORE	AFTER
A. TOTAL CASES INITIATED.................	14213	4804
B. TOTAL RECOMMENDED PENALTIES ENTERED...	$14,161,378	$7,712,076
C. AVG RECOMMENDED PENALTY ENTERED (A/B).	$997	$1,605
AVG INCREASE IN PER PENALTY (BEFORE:AFTER)...........		61%

(155) SENATOR LAUTENBERG: Was the size of the average penalty up 61 percent, or was the aggregate amount of assessed penalties up 61 percent?

ADMIRAL KIME: The 61% increase in recommended penalties represents an increase in the aggregate amount of recommended penalties.

(156) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks in regard to MARPOL penalties that the percent of cases forwarded for penalties increased from 57 percent in 1991 to 75 percent in 1992. Please provide the corresponding data for this same grouping of penalties, and describe what occurred when these cases were forwarded to hearing officers. Was the number of penalties assessed by hearing officers increased by the same rate as the increase in the percentage of cases forwarded for penalties? If not, why not?

ADMIRAL KIME: The number of MARPOL penalties assessed by hearing officers increased at approximately the same rate as the increase in percentage of cases forwarded for civil penalty action.

(157) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks in regard to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL) penalties, that the percent of cases forwarded for penalties increased from 57 percent in 1991 to 75 percent in 1992. Has the Coast Guard ever used its authority under MARPOL (not the implementing U.S. law) to intervene and withhold a vessel from sailing, similar to SOLAS intervention?

ADMIRAL KIME: No. The Coast Guard has not used the intervention powers of MARPOL to detain foreign vessels. Interventions done under U.S. law are sufficient for enforcement and more expeditious then a formal MARPOL intervention.

MARPOL ANNEX V PENALTIES

(158) SENATOR LAUTENBERG: In regard to MARPOL Annex V penalties, you pointed out that, in 1991, there were 12 penalties with an average penalty of $3,300, and in 1992, there were 47 penalties with an average penalty of $6,300. Please provide the corresponding data for penalty assessments for 1993 to date.

ADMIRAL KIME: Civil penalty data is input into the Marine Safety Information System (MSIS) which does not provide this data in a "real time" format; the data entered into MSIS is periodically down-loaded into a separate computer system which utilizes a software program to compile data and produce reports. Data on civil penalty activities for the first three quarters of Fiscal Year 1993 should be available by the end of July.

(159) SENATOR LAUTENBERG: Based on the first seven months of 1993, what is projected to be the number of penalties assessed over the entire year, and what is likely to be the average penalty for those assessed?

ADMIRAL KIME: Data for 1993 is not yet available; data on civil penalty activities for the first three quarters of Fiscal Year 1993 should be available by the end of July. However, based on the historical data trend in assessed penalties, we anticipate 230-270 Marpole V penalty assessments; the average penalty assessments are expected to be in the $8-10K range in FY93. These estimates are based on penalty assessments during the past three years.

(160) SENATOR LAUTENBERG: In regard to the penalty assessments by hearing officers for Annex V violations, you stated that the rate of penalty increase so far has only been about 6 percent. Please provide the relevant average penalty assessments of the hearing officers supporting that observation.

ADMIRAL KIME: The data from the Marine Safety Information System, to which I alluded in my testimony, was provided in response to question 154. It shows that average civil penalty assessments by hearing officers increased by approximately 6% since the new enforcement guidance was issued. However, since that figure includes cases which were forwarded for civil penalty action prior to issuance of the new guidance, it may not accurately reflect the true impact of the guidance on hearing officer assessments.

(161) SENATOR LAUTENBERG: Please describe how you intend to achieve your goal as stated in your verbal testimony to bring about "uniformity across the country in the level of (MARPOL) penalties, and also that the penalty meets the intent of the law and also the seriousness of the charge."

ADMIRAL KIME: We have developed comprehensive data matrices to enable us to analyze MARPOL enforcement and civil penalty activities on a quarterly basis. The new enforcement guidance issued October 1992 provides ranges of recommended penalties that reflect the seriousness of these types of violations. New guidance, soon to be published for the hearing officers will emphasize the need for consistency of penalty assessment nationwide, to the extent practicable. We will continue to analyze both enforcement and civil penalty activities to evaluate consistency, identify problem areas, and determine the need for additional guidance.

(162) SENATOR LAUTENBERG: In your verbal remarks, you stated that you intend to use the quarterly data now available on the penalty and violation activities of your marine safety offices. You stated that you were sending this data out to all of the field offices to let them know where they stand and where things need to be done.

Please provide a copy of all instructions to all marine safety offices or any individual marine safety offices stemming from the findings of your quarterly data.

ADMIRAL KIME: A comprehensive study has been done of the performance of each marine safety office in MARPOL enforcement and compliance for the period March 1992 - February 1993. Results of this study will be transmitted to our units by July 15, 1993 with specific observations and recommendations. We will forward to the committee a copy of this report at that time.

(163) SENATOR LAUTENBERG: Admiral, in your verbal remarks, you stated that the dissatisfaction of the U.S. Government with Panama's enforcement efforts regarding MARPOL Annex V was voiced to Panama by the Secretary of State through our ambassador to Panama.

Please provide a detailed discussion accompanied by any and all memoranda and telexes between the Government of Panama, the State Department, and/or the U.S. Embassy and the Coast Guard, to describe what has transpired since the enactment of the FY 1993 Transportation Appropriations bill. What meetings took place; what information was exchanged; what steps have been committed to on the part of the Government of Panama and its flag administration?

ADMIRAL KIME: While the Department of State (DOS) may have additional information about memoranda and telexes between Panama and their office and related meetings that have transpired, the Coast Guard has knowledge of the following: We are aware of four telexes released, two in the fall of 1992, a third in February 1993 and a fourth in May 1993, regarding MARPOL V violations. The first is dated October 1992 and was sent from the U.S. Embassy in Panama to DOS in Washington explaining Panama's process for handling MARPOL V violation cases. A second telex, dated November 1992, was sent from the DOS in Washington to the U.S. Embassy in Panama. It provided a list of 38 MARPOL V violation cases on which the DOS had not received notification of action taken by Panama. A third telex, dated February 1993, was sent from the U.S. Embassy in Panama to the DOS in Washington reporting back Panama's disposition in regards to the 38 cases. The breakdown is as follows: 12 vessels were sanctioned; 16 were absolved; 4 vessels were no longer registered in Panama; and in the remaining 6 cases, Panama reported that they had not received notification letters of the violations.

The fourth telex was sent in May 1993 from the American Embassy in Panama to the DOS in Washington. It reported that a letter was received from Panama's Bureau of Consular and Maritime Affairs explaining that the Panamanian Government was initiating a series of measures designed to improve compliance with MARPOL Annex V by Panamanian flag vessels. The telex mentioned only one measure specifically - the contracting of port inspectors - citing this as the most important of the initiatives. These port inspectors will carry out inspections of Panamanian flag ships at an international level and ensure compliance with the regulations of MARPOL Annex V. The results of these inspections will be forwarded to the Bureau of Consular and Maritime Affairs. The telex explained that the inspection results would be carefully studied and analyzed by technical personnel and once an infraction and the events around it have been determined, the Bureau would proceed to impose a sanction on the owners of the ship for violating MARPOL Annex V. The four referenced telexes are attached.

DEPARTMENT OF STATE
ARA/NEA REARCS

PAGE 01 PANAMA 09314 051943Z 007725 0087648
INFO: PM(03) RSG(01) JFM(01) PPC(01) ECP(01) OAS(01) ON(01)
-------------------------- 05/2210Z A1 YC (TOTAL COPIES: 009)
ACTION OES-09

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IO-19 JUSE-00 L-00 ADS-00 NSAE-00 NSCE-00 NSF-02
OIC-02 PM-00 PRS-01 SP-00 SS-00 STR-18 T-01
USIE-00 EPAE-00 /093W
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R 051945Z OCT 92
FM AMEMBASSY PANAMA
TO SECSTATE WASHDC 9623
INFO AMEMBASSY LONDON

UNCLAS PANAMA 09314

E.O.12356: N/A
TAGS: SENV, CVVT, IMO, UK
SUBJECT: SECNAVES AND MARPOL ANNEX V NOTIFICATIONS

REF: STATE 310589

1. ACTION REQUEST - PARA. 5

2. AS REQUESTED REFTEL, ON 10/2/92, ECONOFF (LATER JOINED BY ARA/PAN DESKOFF) DISCUSSED PANAMANIAN RESPONSES TO MARPOL ANNEX V VIOLATION NOTIFICATIONS AND PROPOSED USG ACTIONS WITH OFFICIALS OF THE BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES). SECNAVES DIRECTOR-GENERAL AND DEPUTY DIRECTOR EXPLAINED THAT ANY USG NOTIFICATIONS OF ANNEX V VIOLATIONS ARE INVESTIGATED BY SECNAVES TECHNICAL OFFICIALS AND, IF NECESSARY, REFERRED TO THE SECNAVES LEGAL OFFICE FOR APPROPRIATE SANCTIONS. ACCORDING TO THE SECNAVES LEGAL ADVISOR, THE SANCTIONS USUALLY RANGE AROUND USD 500.

3. THE DEPUTY DIRECTOR SAID THAT HE WAS NOT AWARE OF ANY NOTIFICATIONS SENT PRIOR TO 1990. HE POINTED OUT THAT IN 1988-1989, THE SECNAVES OFFICE IN PANAMA WAS IN DISARRAY, THE SECNAVES OFFICE IN NEW YORK CITY (SEGUMAR) WAS CLOSED, AND THE PANAMANIAN EMBASSY IN WASHINGTON WAS NOT IN COMMUNICATION WITH THE GOP. AS A RESULT, SECNAVES CURRENTLY HAS NO RECORD OF MARPOL ANNEX V NOTIFICATIONS SENT TO THE GOP DURING THAT PERIOD. HE RECOMMENDED THAT THE USG PROVIDE SECNAVES WITH A LIST OF THE 29 VIOLATIONS; THEY CAN THEN INFORM POST WHICH ONES THEY HAVE ACTED ON AND THOSE THEY HAVE NOT RECEIVED. THE SECNAVES LEGAL ADVISOR ADDED THAT THE USG SENDS THE NOTIFICATIONS TO THE PANAMANIAN EMBASSY IN WASHINGTON. SECNAVES RECEIVES THEM VIA THE MINISTRY OF FOREIGN AFFAIRS. ANY RESPONSES FROM SECNAVES ARE ROUTED THROUGH THE SAME CHANNELS.

4. COMMENT: THE SECNAVES OFFICIALS STATED THEY HAVE ACTED ON EVERY USG MARPOL V NOTIFICATION THEY HAVE RECORD OF RECEIVING. THEY ADMIT THAT THEY HAVE BEEN LAX IN ACKNOWLEDGING RECEIPT OF THE NOTIFICATIONS. SENDING THEIR RESPONSES VIA GOP DIPLOMATIC CHANNELS, HOWEVER, ADDS FURTHER TO THE DELAYS.

5. ACTION REQUEST: PLEASE FORWARD TO POST A LIST

PANAMA 09314 051943Z
OF THE 29 VIOLATIONS TO BE PASSED ON TO SECNAVES OFFICIALS. IN ADDITION, PLEASE ENSURE THAT COPIES OF FURTHER USG/SECNAVES CORRESPONDENCE ARE PROVIDED TO POST SO THAT EMBOFFS (INCLUDING COAST GUARD ATTACHE) ARE KEPT INFORMED.

HINTON

DEPARTMENT OF STATE
ARA/NEA REARCS

PAGE 01 STATE 365618 0921422 030146 S053973
INFO: PM(03) RSC(01) JFM(01) PPC(01) ECP(01) DAS(01) OM(01)
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NSCE-00 NSF-02 OIC-02 PM-00 PRS-01 SP-00 SS-00
T-01 USIE-00 EPAE-00 /070R

DRAFTED BY: OES/OA/MLP:R C BLUMBERG:EC
APPROVED BY: OES/OA:R T SCULLY
ARA/PAN:WORR
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O 092144Z NOV 92
FM SECSTATE WASHDC
TO AMEMBASSY PANAMA IMMEDIATE

UNCLAS STATE 365618

E.O. 12356: N/A
TAGS: SENV, IMO
SUBJECT: MARPOL ANNEX V VIOLATIONS

REF: (A) 92 PANAMA 09314

1. IN RESPONSE TO REFTEL, THERE FOLLOWS IN PARAGRAPH 3 A LIST OF SUSPECTED ANNEX V VIOLATIONS. THE DATES ON WHICH THEY TOOK PLACE AND THE NAMES OF THE VESSELS INVOLVED. THIS LIST, TOGETHER WITH SUPPORTING DOCUMENTATION ALSO HAS BEEN PROVIDED TO THE PANAMA DESK SO THAT IT CAN BE RE-TRANSMITTED TO THE PANAMANIAN EMBASSY OR TO POST IF

THIS IS DESIRABLE. DEPARTMENT WILL FOLLOW THE SAME PROCEDURE IN REGARD TO FUTURE SUSPECTED VIOLATIONS.

2. POST SHOULD ATTEMPT TO OBTAIN FROM SECNAVES COPIES OF ACKNOWLEDGEMENTS OF DEPARTMENT'S LETTERS AS WELL AS COPIES OF LETTERS REPORTING ON ACTIONS TAKEN BY SECNAVES REGARDING SUSPECTED VIOLATIONS. THIS MAY SOLVE THE PROBLEM OF DELAYS CAUSED BY TRANSMISSION THROUGH MINISTRY OF FOREIGN AFFAIRS.

3. MARPOL V VIOLATIONS:

NO EMBASSY RESPONSE/NO RECORD OF ANY ACTION TAKEN

PANAMA

1. PALIMA-L8806345	10 MAR 92
2. CISCO-L7530377	02 MAY 92
3. PETROJAM NAVAGATOR-L8014965	24 JAN 91
4. CAVALIER-L010G379	02 FEB 91
5. BLUE FLAME-L051792	25 MAR 91
6. WESTERN FUTURE-L8323214	06 OCT 91
7 BLUE COAST I - L7851321	07 FEB 90
8. SEA BEACH - L7017571	22 MAR 90
9. AFSAR-L7341360	13 F 90
10. RICCHACHA-L7112010	01 MAR 90

11. BROMA-L7102338	12 MAR 90
12. TRADEWIND EXPRESS-L8584636	22 MAR 90
13. MARITIME JOY-L7603277	05 APR 90
14. TRADE EVER-L7610347	03 APR 90
15. JUNIOR GRANT I-L7835016	05 APR 90
16. BRITANIS-L5229223	07 MAY 90
17. CARRIBEAN HIGHWAY-L8001476	13 MAY 90
18. CHIOS FAITH-L7112565	31 JUL 90
19. DISCOVERY-L7800001	21 JUN 89
20. MARTI GRAS-L5103936	23 AUG 89
21. CARNIVALE-L5103924	23 AUG 89
22. HOLIDAY-L8217881	23 AUG 89
23. TRADE RESOLVE-L7328839	12 OCT 89
24. ALKYONIS L7507162	26 OCT 89
25. SHOUN EMPERIOR-L8300494	01 DEC 89
26. CHIOS FAITH L7112565	08 DEC 89
27. CORAL GRACE-L8312148	22 FEB 91
28. GOLDEN CHARIOT-L7128954	22 FEB 91
29. KYOKURO LILY-L8412639	20 SEP 91
30. LISA D-CC-026509	27 FEB 91
31. LUNAMAR II-L7903251	09 MAR 91
32. MARIE H-L7306336	16 MAY 91
33. MARINE II-L7501431	22 MAR 90
34. RAFAELAS-L7320253	26 JUL 91
35. SETO BREEZE-CG027492	27 FEB 91
36. SANKO SOUTH-L8307861	22 FEB 91
37. TENSHOO-L8105725	11 FEB 91
38. YICK YUK-L8029430	04 SEP 91

EAGLEBURGER

PAGE 01 OF 02 PANAMA 00876 00 OF 03 171221Z 001695 S002061
INFO: PM(03) RSG(01) JFM(01) PPC(01) ECP(01) OAS(01) ARA(01)
PPA(01) RJ(01)
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ACTION OES-09

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CIAE-00 COME-00 CIME-00 C-01 OASY-00 DINT-05 DODE-00
DOEE-00 ITCE-00 DOTE-00 EB-00 EXME-00 EUR-00 E-01
FMC-02 HA-09 H-01 INRE-00 INR-00 IO-19 IIC-01
JUSE-00 L-00 ADS-00 NSAE-00 NSCE-00 NSF-02 OIC-02
OMB-01 OPIC-00 PA-02 PM-00 PRS-01 P-01 SNP-00
SP-00 SS-00 STR-17 TRSE-00 T-01 USIE-00 EPAE-00
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R 011552Z FEB 93
FM AMEMBASSY PANAMA
TO SECSTATE WASHDC 2618
INFO AMEMBASSY LONDON

UNCLAS PANAMA 00876

STATE FOR OES/OA; ARA/PAN

CORRECTED COPY (DISTRIBUTION)
E.O. 12356: N/A
TAGS: EWWT, SENV, IMO, PREL, PM
SUBJECT: MARPOL V VIOLATIONS

REF: (A) 92 STATE 310589 (B) 92 PANAMA 9314
(C) 92 STATE 365618

1. THIS IS AN ACTION CABLE - SEE PARA. 4

SUMMARY
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2. ON JANUARY 27, ECONOFF MET WITH OFFICIALS OF THE BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES) TO DISCUSS OPEN CASES OF SUSPECTED MARPOL V VIOLATIONS (REF A). MOST OF THE CASES HAVE BEEN RESOLVED, BUT SECNAVES' NOTIFICATION TO THE DEPARTMENT ON MANY CASES WAS SLOW OR NON EXISTENT. SECNAVES LEGAL ADVISOR AGREED TO TAKE STEPS TO CLOSE THE LOOP AND SUGGESTED WAYS TO POSSIBLY SPEED UP THE PROCESS. END SUMMARY.

STATUS OF MARPOL ANNEX V VIOLATIONS
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3. SECNAVES SENT POST IN DECEMBER 1992 A LIST OF 32 ALLEGED VIOLATIONS (OF THE 38 LISTED REF C) ON WHICH THEY HAD TAKEN ACTION (THE SECNAVES LIST IS REPRODUCED IN TABLES I-IV). TWELVE VESSELS WERE SANCTIONED, 16 WERE ABSOLVED, AND FOUR WERE NO LONGER REGISTERED IN PANAMA. ONE VESSEL SANCTIONED, JOVIAN/LOOP, WAS NOT LISTED IN REF C. THE FIVE REMAINING VIOLATIONS PANAMA HAD NOT RECEIVED PREVIOUSLY. IN THE JANUARY 27 MEETING, ROSAS SAID HE WOULD INQUIRE INTO WHAT HAPPENED TO THE FIVE MISSING NOTIFICATIONS FROM THE DEPARTMENT. HE SAID THAT IT WOULD BE DIFFICULT TO PENALIZE THESE VESSELS GIVEN THE TIME THAT HAD ELAPSED SINCE THE OCCURENCE OF THE ALLEGED VIOLATIONS IN 1989, 1990, AND 1991, BUT THAT HE WOULD INVESTIGATE THE CASES.

4. (ACTION REQUEST) - POST DID NOT RECEIVE A COPY

OF THE JULY 31, 1990 SUSPECTED MARPOL VIOLATION OF CHIOS FAITH-L711300494. PLEASE POUCH A COPY FOR FORWARDING TO SECNAVES. CHIOS FAITH COMMITTED A PREVIOUS VIOLATION IN DECEMBER 1989 AND WAS PENALIZED BY SECNAVES - SEE TABLE I.)

5. ECONOFF PROVIDED SECNAVES LEGAL ADVISOR AND STAFFASST WITH COPIES OF 37 SUSPECTED MARPOL ANNEX V VIOLATIONS RECEIVED FROM DEPARTMENT IN RESPONSE TO REF B. (COMMENT: COMPARING THE DATES OF THE STATE DEPARTMENT COVER LETTERS TO THOSE OF THE SECNAVES RESOLUTIONS, IT APPEARS THAT ACTION IS TAKEN WITHIN 60 DAYS OF THE NOTIFICATION OF SUSPECTED VIOLATIONS TO THE PANAMANIAN EMBASSY IN WASHINGTON. END COMMENT.)

6. ECONOFF REQUESTED THAT ROSAS PROVIDE COPIES OF THE SECNAVES' SANCTIONS OF THOSE VESSELS GUILTY OF MARPOL V VIOLATIONS TO SEND TO THE DEPARTMENT. ROSAS SAID HE WOULD HAVE TO VERIFY WITH SECNAVES DIRECTOR-GENERAL LUIS FABREGA IF HE COULD DO SO. ECONOFF ALSO SUGGESTED THAT SECNAVES INFORM (WHICH IT HAD NOT DONE PREVIOUSLY) THE DEPARTMENT WHEN IT DID NOT FIND SUFFICIENT CAUSE TO SANCTION SUSPECTED MARPOL V VIOLATIONS. TAKING THESE STEPS COULD HELP CLOSE THE LOOP IN THESE MATTERS AND PREVENT MISUNDERSTANDINGS BETWEEN THE GOP AND USG.

7. ROSAS SUGGESTED THAT THE TIME BETWEEN THE INITIAL REPORT OF A SUSPECTED VIOLATION AND SECNAVES' RECEIPT OF THE REPORT, WHICH HE CLAIMED COULD BE AS LONG AS 8-10 MONTHS, NEEDED TO BE REDUCED. HE SAID THAT REPORTS OF SUSPECTED VIOLATIONS SENT FROM THE PANAMANIAN EMBASSY IN WASHINGTON TOOK ABOUT ONE MONTH TO REACH SECNAVES/PANAMA. HE ADDED THAT THE MARPOL TREATY PROVIDES FOR AN AGENCY-TO-AGENCY CHANNEL FOR MARPOL COMPLAINTS, BYPASSING THE DIPLOMATIC ROUTE.

8. HE PROPOSED THAT THE USG SEND THE COMPLAINTS DIRECTLY TO SECNAVES VIA INTERNATIONAL MAIL AND NOTED THAT BRITISH GOVERNMENT (HMG) AGENCIES CORRESPOND WITH SECNAVES/PANAMA IN THIS FASHION AND HAVE HAD NO PROBLEMS WITH LOST MAIL. HE COULD NOT EXPLAIN WHY LETTERS SENT THROUGH THE MFA INFORMING THE STATE DEPARTMENT OF SANCTIONS IMPOSED WERE NOT REACHING THE DEPARTMENT. PREVIOUSLY, (REF B) SECNAVES ADMITTED BEING LAX IN INFORMING THE USG OF MARPOL ANNEX V SANCTIONS.

9. COMMENT: POST SUGGESTS THAT DEPARTMENT LOOK INTO USE OF INTERNATIONAL MAIL OR OTHER EXPEDITIOUS ROUTES FOR TRANSMISSION OF SUSPECTED MARPOL VIOLATIONS TO SECNAVES/PANAMA. WHILE EMBASSY DOES NOT HAVE TO HAVE ACTION, IT WOULD STILL NEED TO BE KEPT IN THE LOOP.)

TABLE I

VESSELS SANCTIONED FOR
MARPOL V VIOLATIONS

VESSEL	DATE OF INFRACTION	NO. AND DATE OF SECNAVES RESOLUTION
-----	-------	---------------
CISCO-L/530327	02 MAY 92	603-04-265-ALCN,

16 SEPT 92

PALIMA-L8806345 (NAME CHANGED TO LIMAR)	10 MAR 92	603-04-309 ALCN, 5 NOV 92
CAVALIER-L8106379	02 FEB 91	603-04-310-ALCN, 5 NOV 92
ETOKUHO LILY-L8412639	SEP 91	603-04-43-ALCN, 6 MAR 92
BLUE COAST I-L7851321	07 FEB 90	603-04-153-ALCN, 26 JUNE 90
SEA BEACH:L7817521	22 MAR 90	603 04-155-ALCN, 28 JUN 90
TRADEVIND EXPRESS-L8504636	22 MAR 90	603-04-259-ALCN, 14 SEPT 92
TRADE EVER-L7610347	03 APR 90	603-04-209-ALCN, 23 AUG 90
TRADE RESOLVE-L7328839	12 OCT 89	603-04-162-ALCN, 9 JUL 90
ALKYONIS-L7507162	26 OCT 89	603-04-240-ALCN, 12 OCT 90
CHIOS FAITH-L7112565	08 DEC 89	603-04-161-ALCN, 6 JUL 90
JOVIAN/LOOP	UNKNOVN	603-04-172-ALCN

TABLE II

VESSELS NOT SANCTIONED

VESSEL	DATE OF ALLEGED INFRACTION
PETROJAM NAVAGATOR-L8814966	28 JAN 91
CORAL GRACE-L8312148	22 FEB 91
GOLDEN CHARIOT-L7128954	22 FEB 91
LISA D-CG-026509	27 FEB 91
BRUMA-L71023388	12 MAR 90
MARITIME JOY-L7603277	05 APR 90
JUNIOR GRANT I-L7035016	05 APR 90
CARRIBEAN HIGHVAY-L8821476 (NAME CHANGED TO BARCELONA)	13 MAY 90
HOLIDAY-L8217881	23 AUG 89
MARINE II-L7581431	22 MAR 90
DISCOVERY-L7808281	21 JUN 89
LUNAMAR II-L7903251	09 MAR 91
SETO BREEZE-CG027492	27 FEB 91

SANKO SOUTH-L8307064	22 FEB 91
TENSHOO-L8405725	11 FEB 1
VICK YUK-L8029430	04 SEP 91

TABLE III

REPORTS NOT RECEIVED BY SECNAVES

VESSEL	DATE OF INFRACTION
WESTERN FUTURE-L8373714	16 OCT 91
MARIE B-L7306336	16 MAY 91
RAFAELAS-L7320253	26 JUL 91
RIOCHACHA-L7112010	01 MAR 90
BRITANIS-L5229223	07 MAY 90
SHOUN EMPEROR-L8300494	01 DEC 89

TABLE IV

VESSELS NO LONGER REGISTERED IN PANAMA

VESSEL	DATE OF INFRACTION
BLUE FLAME-L851792	25 MAR 91
MARTI GRAS-L5103936	23 AUG 89
CARNIVALE-L5103924	23 AUG 89
AFSAR-L7341960	13 FEB 90
BIKTON	

economic counselor
embassy of the united states
panama city

ms. Quinn:

in response to your letter of april 7, 1993, i am writing to inform you that the bureau of consular and maritime affairs has put into practice a series of measures designed to ensure that panamanian flag ships comply with the rules of the international convention against maritime pollution by ships, 1973/78.

the most important of these measures is the contracting of port inspectors overseas, who, in the name of the government of panama, will carry out inspections of panamanian flag ships at an international level, and ensure compliance with the regulations of marpol annex v.

These inspectors serve a function of vigilance and oversight of panamanian ships, carrying out periodic inspections and forwarding the results of these inspections to the bureau of consular and maritime affairs.

These results are carefully studied and analyzed by the personnel of the technical department, and once the infraction and the events surrounding it have been determined, we proceed to impose a sanction on the owners of the ship for violating marpol annex v.

In the hope of having satisfied your request, we take leave of you, attentively,

jorge alberto rosas,
chief legal advisor
end text.

3. Begin spanish text of note no. 603-01-280-Alcn:

republica de panama
panama, 12 de mayo de 1993

(164) SENATOR LAUTENBERG: Admiral, in your verbal remarks, you stated that the dissatisfaction of the U.S. Government with Panama's enforcement efforts regarding MARPOL Annex V was voiced to Panama by the Secretary of State through our ambassador to Panama.

You stated in your verbal remarks that Panama has looked at all the cases and told the U.S. Government what disposition they took. Please provide an accounting of all Panamanian MARPOL V violations and what disposition was taken by the Government of Panama.

ADMIRAL KIME: A cable was sent from the American Embassy in Panama to the Department of State (DOS) in February 1993 listing most, but not all, of the MARPOL V violation cases that were initiated by the Coast Guard and forwarded through DOS to Panama. The cable identified the dispositions taken in those cases as follows:

VESSELS SANCTIONED FOR MARPOL V VIOLATIONS

VESSEL	DATE OF INFRACTION	DATE OF PANAMANIAN BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES) RESOLUTION
CISCO	02 MAY 92	16 SEP 92
PALIMA	10 MAY 92	05 NOV 92
CAVALIER	02 FEB 91	05 NOV 92
KYOKUHO	SEP 91	06 MAR 92
BLUE COAST	07 FEB 90	26 JUN 90
SEA BEACH	22 MAR 90	28 JUN 90
TRADEWIND EXPRESS	22 MAR 90	14 SEP 92
TRADE EVER	03 APR 90	23 AUG 90
TRADE RESOLVE	12 OCT 90	09 JUL 90
ALKYONIS	26 OCT 89	12 OCT 90
CHIOS FAITH	08 DEC 89	06 JUL 90
JOVIAN/LOOP	UNKNOWN	UNKNOWN

VESSELS NOT SANCTIONED

VESSEL	DATE OF INFRACTION
PETROJAM NAVIGATOR	24 JAN 91
CORAL GRACE	22 FEB 91
GOLDEN CHARIOT	22 FEB 91
LISA D	27 FEB 91
BRUMA	12 MAR 90
MARITIME JOY	05 APR 90
JUNIOR GRANT I	05 APR 90
CARRIBEAN HIGHWAY	13 MAY 90
HOLIDAY	23 AUG 90
MARINE II	27 MAR 90
DISCOVERY	21 JUN 89
LUNAMAR II	09 MAR 91
SETO BREEZE	27 FEB 91
SANKO SOUTH	22 FEB 91
TENSHOO	11 FEB 91
VICK YUK	04 SEP 91

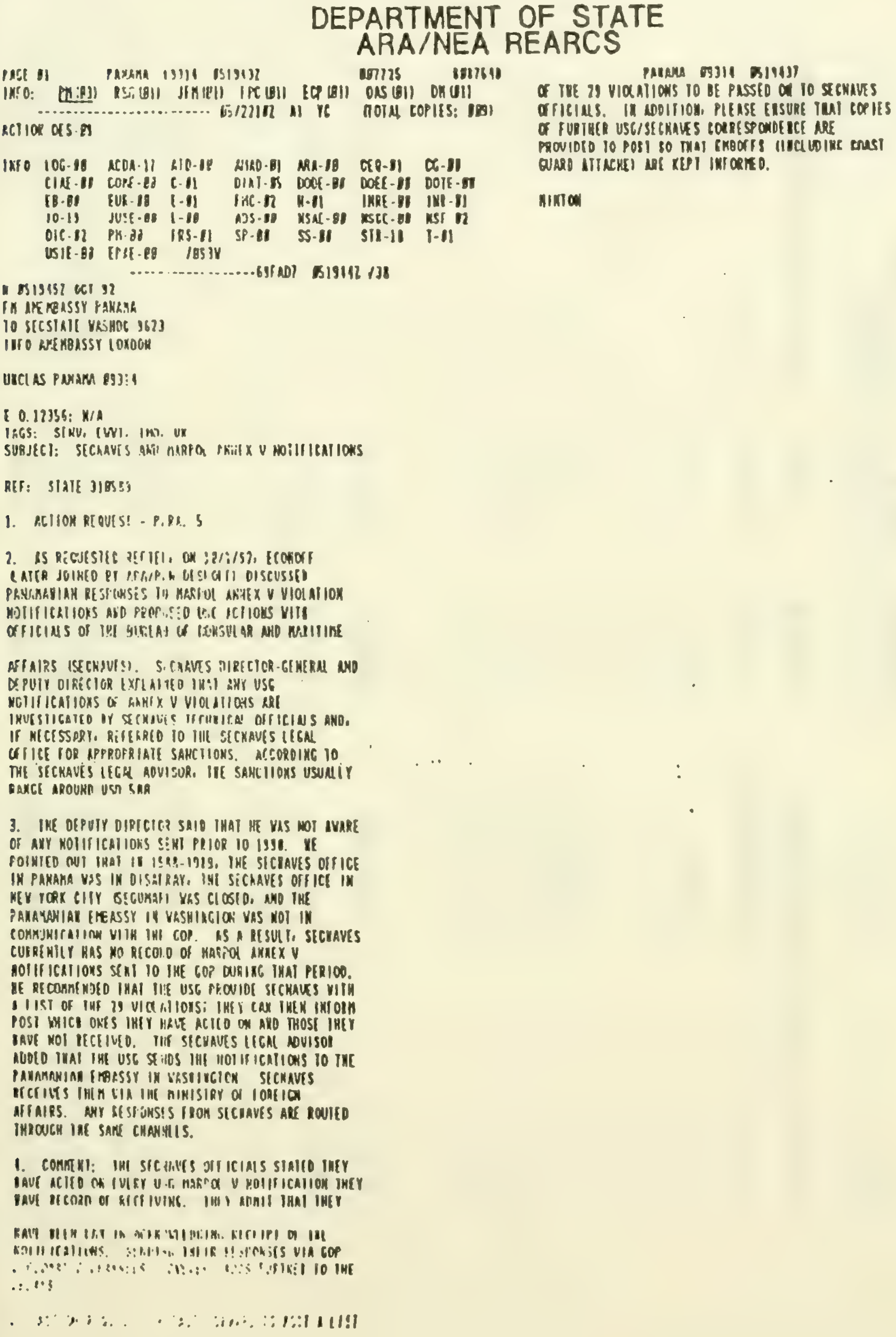
REPORTS NOT RECEIVED BY SECNAVES

VESSEL	DATE OF INFRACTION
WESTERN FUTURE	16 OCT 91
MARIE H	16 MAY 91
RAFAELA S	26 JUL 91
RIOCHACHA	01 MAR 90
BRITANIS	07 MAY 90
SHOUN EMPERIOR	01 DEC 89

VESSELS NO LONGER REGISTERED IN PANAMA

VESSEL	DATE OF INFRACTION
BLUE FLAME	25 MAR 91
MARTI GRAS	23 AUG 89
CARNIVALE	23 AUG 89
ASFAR	13 FEB 90

Independent of the cable, attached is the Coast Guard's record of all MARPOL Annex V violation cases against Panamanian vessels that have been forwarded, in accordance with the MARPOL Convention, to the Department of State. There are 53 such cases. The Department of State has forwarded back to the Coast Guard 10 formal replies from Panama regarding MARPOL violations. The attached list provides the details of enforcement actions reported by Panama in those 10 cases.



DEPARTMENT OF STATE
ARA/NEA REARCS

PAGE 01 PANAMA 09314 051943Z 007725 0087640
INFO: PM(03) RSC(01) JFM(01) FPC(01) ECP(01) OAS(01) DN(01)
------------------------ 05/2210Z A1 YC (TOTAL COPIES: 009)
ACTION OES-09

INFO LOG-00 ACDA-17 AID-00 AMAD-01 ARA-00 CEQ-01 CG-00
CIAE-00 COME-00 C-01 DINT-05 DODE-00 DOEE-00 DOTE-00
EB-00 EUR-00 E-01 FMC-02 H-01 INRE-00 INR-01
IO-19 JUSE-00 L-00 ADS-00 NSAE-00 NSCE-00 NSF 02
OIC-02 PM-00 FRS-01 SP-00 SS-00 STR-10 T-01
USIE-00 EPAE-00 /053W
------------------69FAD7 051944Z /38
R 051945Z OCT 92
FM AMEMBASSY PANAMA
TO SECSTATE WASHDC 3623
INFO AMEMBASSY LONDON

UNCLAS PANAMA 09314

E.O. 12356: N/A
TAGS: SENV, EWWT, IMO, UK
SUBJECT: SECNAVES AND MARPOL ANNEX V NOTIFICATIONS

REF: STATE 318553

1. ACTION REQUEST - PARA. 5

2. AS REQUESTED REFTEL, ON 10/1/92, ECONOFF (LATER JOINED BY ARA/PAN DESK OFF) DISCUSSED PANAMANIAN RESPONSES TO MARPOL ANNEX V VIOLATION NOTIFICATIONS AND PROPOSED USG ACTIONS WITH OFFICIALS OF THE BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES). SECNAVES DIRECTOR-GENERAL AND DEPUTY DIRECTOR EXPLAINED THAT ANY USG NOTIFICATIONS OF ANNEX V VIOLATIONS ARE INVESTIGATED BY SECNAVES TECHNICAL OFFICIALS AND, IF NECESSARY, REFERRED TO THE SECNAVES LEGAL OFFICE FOR APPROPRIATE SANCTIONS. ACCORDING TO THE SECNAVES LEGAL ADVISOR, THE SANCTIONS USUALLY RANGE AROUND USD 500.

3. THE DEPUTY DIRECTOR SAID THAT HE WAS NOT AWARE OF ANY NOTIFICATIONS SENT PRIOR TO 1990. WE POINTED OUT THAT IN 1988-1989, THE SECNAVES OFFICE IN PANAMA WAS IN DISARRAY, THE SECNAVES OFFICE IN NEW YORK CITY (SEGUMAR) WAS CLOSED, AND THE PANAMANIAN EMBASSY IN WASHINGTON WAS NOT IN COMMUNICATION WITH THE GOP. AS A RESULT, SECNAVES CURRENTLY HAS NO RECORD OF MARPOL ANNEX V NOTIFICATIONS SENT TO THE GOP DURING THAT PERIOD. HE RECOMMENDED THAT THE USG PROVIDE SECNAVES WITH A LIST OF THE 29 VIOLATIONS; THEY CAN THEN INFORM POST WHICH ONES THEY HAVE ACTED ON AND THOSE THEY HAVE NOT RECEIVED. THE SECNAVES LEGAL ADVISOR ADDED THAT THE USG SENDS THE NOTIFICATIONS TO THE PANAMANIAN EMBASSY IN WASHINGTON. SECNAVES RECEIVES THEM VIA THE MINISTRY OF FOREIGN AFFAIRS. ANY RESPONSES FROM SECNAVES ARE ROUTED THROUGH THE SAME CHANNELS.

4. COMMENT: THE SECNAVES OFFICIALS STATED THEY HAVE ACTED ON EVERY U.S. MARPOL V NOTIFICATION THEY HAVE RECORD OF RECEIVING. THEY ADMIT THAT THEY HAVE BEEN LAX IN ACKNOWLEDGING RECEIPT OF THE NOTIFICATIONS. SENDING THEIR RESPONSES VIA GOP [illegible] CHANNELS [illegible] TO THE [illegible]

5. [illegible] POST A LIST OF THE 29 VIOLATIONS TO BE PASSED ON TO SECNAVES OFFICIALS. IN ADDITION, PLEASE ENSURE THAT COPIES OF FURTHER USG/SECNAVES CORRESPONDENCE ARE PROVIDED TO POST SO THAT EMBOFFS (INCLUDING COAST GUARD ATTACHE) ARE KEPT INFORMED.

HINTON

MARPOL ANNEX V VIOLATIONS

(CASES FORWARDED TO PANAMA)

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
12/1/89	8	SHOUN EMPEROR	TANK	PANAMA	NO	NONE	
10/12/89	8	TRADE RESOLVE	TANK	PANAMA	NO	NONE	
10/26/89	8	ALKYONIS	FREIGHT	PANAMA	NO	NONE	
12/8/89	8	CHIOS FAITH	FREIGHT	PANAMA	NO	NONE	
8/23/89	7	MARDI GRAS	PASSENGER	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
8/23/89	7	CARNIVALE	PASSENGER	PANAMA	NO	NONE	
8/23/89	7	HOLIDAY	PASSENGER	PANAMA	NO	NONE	
2/7/90	8	BLUE COAST 1	FREIGHT	PANAMA	NO	NONE	
3/12/90	8	BRUMA 1	FREIGHT	PANAMA	NO	NONE	
3/1/90	8	RIOHACHA	FREIGHT	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
2/13/90	8	AFSAR	FREIGHT	PANAMA	NO	NONE	
3/22/90	8	SEA BEACH	FREIGHT	PANAMA	NO	NONE	
4/3/90	8	TRADE EVER	FREIGHT	PANAMA	NO	NONE	
5/7/90	7	BRITANIS	PASSENGER	PANAMA	NO	NONE	
7/13/90	8	CARIBBEAN HIGHWAY	FREIGHT	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
4/5/90	11	MARITIME JOY	FREIGHT	PANAMA	NO	NONE	
1/24/90	8	PETROJAM NAVIGATOR	TANK	PANAMA	NO	NONE	
1/25/89	1	GALILEO	PASSENGER	PANAMA	NO	NONE	
2/11/91	8	TENSHOO	TANK	PANAMA	NO	NONE	
2/27/91	8	SETO BREEZE	TANK	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
2/22/91	8	SANKO SOUTH	FREIGHT	PANAMA	NO	NONE	
2/27/91	8	LISA D	TANK	PANAMA	NO	NONE	
2/22/91	8	GOLDEN CHARIOT	FREIGHT	PANAMA	NO	NONE	
2/22/91	8	CORAL GRACE	FREIGHT	PANAMA	NO	NONE	
3/22/91	8	MARINE II	TANK	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
3/9/91	8	LUNAMAR II	TANK	PANAMA	NO	NONE	
5/16/91	8	MARIE H	FREIGHT	PANAMA	NO	NONE	
9/4/91	8	YICK LUK	FREIGHT	PANAMA	NO	NONE	
7/26/91	1	RAFAELA S	FREIGHT	PANAMA	NO	NONE	
10/11/91	7	BRITANIS	PASSENGER	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
9/14/91	8	KYOKUHO LILY	TANK	PANAMA	NO	NONE	
3/22/92	1	TRADEWIND EXPRESS	FREIGHT	PANAMA	NO	NONE	
5/20/92	8	CISCO	FREIGHT	PANAMA	NO	NONE	
8/24/91	1	ENCHANTED ISLE	PASSENGER	PANAMA	NO	NONE	
7/4/92	1	FANDANGO	TANK	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
10/2/91	7	CAP TRIUNFO	FREIGHT	PANAMA	NO	NONE	
5/7/92	7	CROWN FROST	FREIGHT	PANAMA	NO	NONE	
10/3/92	8	CORAL I	FREIGHT	PANAMA	NO	NONE	
11/1/92	7	DOLPHIN IV	PASSENGER	PANAMA	NO	NONE	
12/8/92	7	SEABREEZE I	PASSENGER	PANAMA	NO	NONE	

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
7/29/92	5	GALLANT II	FREIGHT	PANAMA	NO	NONE	
9/2/92	5	OLIVEBANK	FREIGHT	PANAMA	NO	NONE	
9/10/92	5	RAFAELA S	FREIGHT	PANAMA	NO	NONE	
3/10/92	1	PALIMA	TANK	PANAMA	YES	FINE	INVESTIGATION REVEALED THAT A VIOLATION HAD OCCURRED. VESSEL WAS FINED IN ACCORDANCE WITH PANAMANIAN LAW.
2/2/91	1	CAVALIER	FREIGHT	PANAMA	YES	FINE (500 BALBOAS)	INVESTIGATED CASE AND FINED THE VESSEL IN ACCORDANCE WITH PANAMANIAN LAW.

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
9/10/91	7	INAGUA TANIA	FREIGHT	PANAMA	YES	LTR OF REPRIMAND ISSUED	DIRECTORATE GENERAL FOR CONSULAR AND MARITIME AFFAIRS ISSUED A LETTER OF REPRIMAND TO THE VESSEL'S ATTORNEYS. WARNING OF SANCTIONS IN ACCORDANCE TO PANAMANIAN LAW IN THE EVENT OF A REOCCURENCE
2/3/92	8	MARITIME FRIENDSHIP	FREIGHT	PANAMA	YES	LTR OF REPRIMAND ISSUED	DIRECTORATE FOR CONSULAR AND MARITIME AFFAIRS SENT A LETTER OF REPRIMAND TO THE ATTORNEYS REPRESENTING THE VESSEL. WARNING OF SANCTIONS IN ACCORDANCE TO PANAMANIAN LAW IN THE EVENT OF A REOCCURENCE.
4/5/90	8	JUNIOR GRANT I	FREIGHT	PANAMA	YES	NONE	FLAG STATE TOOK NO ACTION BECAUSE SUCH A LONG PERIOD OF TIME HAD ELAPSED SINCE THE ALLEGED VIOLATION TOOK PLACE.
3/25/91	1	BLUE FLAME	FREIGHT	PANAMA	YES	NONE/CHANGED REGISTRY	NO ACTION WAS TAKEN BECAUSE VESSEL HAS CHANGED REGISTRY.
10/11/91	8	LUCKY FIELD	FREIGHT	PANAMA	YES	REPRIMAND	DIRECTORATE GENERAL FOR CONSULAR AND MARITIME AFFAIRS ISSUED A REPRIMAND TO THE VESSEL.

VIO DATE	DISTRICT	VESSEL NAME	SERVICE	FLAG	RESPONSE?	ACTION TAKEN	DETAILS
2/8/92	8	NEWAYS	FREIGHT	PANAMA	YES	REPRIMAND ISSUED	DIRECTORATE GENERAL FOR CONSULAR AND MARITIME AFFAIRS ISSUED A REPRIMAND TO THE VESSEL
7/30/90	8	CHIOS FAITH	FREIGHT	PANAMA	YES	WARNING	DIRECTOR FOR CONSULAR AND MARITIME AFFAIRS HAS ISSUED A WARNING TO THE VESSEL, IN ACCORDANCE WITH PANAMANIAN LAW.
8/25/91	11	ENCHANTED ISLE	PASSENGER	PANAMA	YES	WARNING ISSUED	DIRECTOR FOR CONSULAR AND MARITIME AFFAIRS HAS ISSUED A WARNING TO THE VESSEL, IN ACCORDANCE WITH PANAMANIAN LAW.

(165) SENATOR LAUTENBERG: What indications have you seen indicating a greater awareness on the part of the Government of Panama on the need to comply with MARPOL Annex V? Please provide relevant data supporting your observations of improvement of the efforts of the Government of Panama in complying with the provisions of MARPOL Annex V.

ADMIRAL KIME: We have seen two specific indications that the Government of Panama has increased awareness of it's MARPOL responsibilities. These are their message 181616Z May 93 (shown below) to the U.S. Department of State and the receipt of the Government of Panama's responses to MARPOL violation notification letters sent by the U.S.
Due to the limited number of responses received to date from the Government of Panama, it is too early to confirm that this signifies a long term positive trend.

PAGE 01 OF 02 PANAMA 00876 00 OF 03 171221Z 001695 S002061
INFO: PM(03) RSG(01) JFM(01) PPC(01) ECP(01) OAS(01) ARA(01)
PPA(01) RJ(01)
------------------ .. ... 17/1503Z A2 RD (TOTAL COPIES: 011)
ACTION OES-09

INFO LOG-00 COR-01 ACDA-17 AID-00 ARA-00 CEQ-01 CG-00
CIAE-00 COME-00 CIME-00 C-01 OASY-00 DINT-05 DODE-00
DOEE-00 ITCE-00 DOTE-00 EB-00 EXME-00 EUR-00 E-01
FMC-02 HA-09 H-01 INRE-00 INR-00 IO-15 IIC-01
JUSE-00 L-00 ADS-00 NSAE-00 NSCE-00 NSF-02 OIC-02
OMB-01 OPIC-06 PA-02 PM-00 PRS-01 P-01 SNP-00
SP-00 SS-00 STR-17 TRSE-00 T-01 USIE-00 EPAE-00
/111W
-------------------SCCCF6 171442Z /43 49/

R 011552Z FEB 93
FM AMEMBASSY PANAMA
TO SECSTATE WASHDC 2618
INFO AMEMBASSY LONDON

UNCLAS PANAMA 00876

STATE FOR OES/OA; ARA/PAN

C O R R E C T E D C O P Y (DISTRIBUTION)
E.O.12356: N/A
TAGS: EWWT, SENV, IMO, PREL, PM
SUBJECT: MARPOL V VIOLATIONS

REF: (A) 92 STATE 310583 (B) 92 PANAMA 9314
(C) 92 STATE 365618

1. THIS IS AN ACTION CABLE - SEE PARA. 4

SUMMARY.
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2. ON JANUARY 27, ECONOFF MET WITH OFFICIALS OF THE BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES) TO DISCUSS OPEN CASES OF SUSPECTED MARPOL V VIOLATIONS (REF A). MOST OF THE CASES HAVE BEEN RESOLVED, BUT SECNAVES' NOTIFICATION TO THE DEPARTMENT ON MANY CASES WAS SLOW OR NON EXISTENT. SECNAVES LEGAL ADVISOR AGREED TO TAKE STEPS TO CLOSE THE LOOP AND SUGGESTED WAYS TO POSSIBLY SPEED UP THE PROCESS. END SUMMARY.

STATUS OF MARPOL ANNEX V VIOLATIONS
----

3. SECNAVES SENT POST IN DECEMBER 1992 A LIST OF 32 ALLEGED VIOLATIONS (OF THE 38 LISTED REF C) ON WHICH THEY HAD TAKEN ACTION (THE SECNAVES LIST IS REPRODUCED IN TABLES I-IV). TWELVE VESSELS WERE SANCTIONED, 16 WERE ABSOLVED, AND FOUR WERE NO LONGER REGISTERED IN PANAMA. ONE VESSEL SANCTIONED, JOVIAN/LOOP, WAS NOT LISTED IN REF C. THE FIVE REMAINING VIOLATIONS PANAMA HAD NOT RECEIVED PREVIOUSLY. IN THE JANUARY 27 MEETING, ROSAS SAID HE WOULD INQUIRE INTO WHAT HAPPENED TO THE FIVE MISSING NOTIFICATIONS FROM THE DEPARTMENT. HE SAID THAT IT WOULD BE DIFFICULT TO PENALIZE THESE VESSELS GIVEN THE TIME THAT HAD ELAPSED SINCE THE OCCURENCE OF THE ALLEGED VIOLATIONS IN 1989, 1990, AND 1991, BUT THAT HE WOULD INVESTIGATE THE CASES.

4. (ACTION REQUEST) - POST DID NOT RECEIVE A COPY OF THE JULY 31, 1990 SUSPECTED MARPOL VIOLATION OF CHIOS FAITH-L711380494. PLEASE POUCH A COPY FOR FORWARDING TO SECNAVES. CHIOS FAITH COMMITTED A PREVIOUS VIOLATION IN DECEMBER 1989 AND WAS PENALIZED BY SECNAVES - SEE TABLE I.)

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7. ROSAS SUGGESTED THAT THE TIME BETWEEN THE INITIAL REPORT OF A SUSPECTED VIOLATION AND SECNAVES' RECEIPT OF THE REPORT, WHICH HE CLAIMED COULD BE AS LONG AS 8-10 MONTHS, NEEDED TO BE REDUCED. HE SAID THAT REPORTS OF SUSPECTED VIOLATIONS SENT FROM THE PANAMANIAN EMBASSY IN WASHINGTON TOOK ABOUT ONE MONTH TO REACH SECNAVES/PANAMA. HE ADDED THAT THE MARPOL TREATY PROVIDES FOR AN AGENCY-TO-AGENCY CHANNEL FOR MARPOL COMPLAINTS, BYPASSING THE DIPLOMATIC ROUTE.

8. HE PROPOSED THAT THE USG SEND THE COMPLAINTS DIRECTLY TO SECNAVES VIA INTERNATIONAL MAIL AND NOTED THAT BRITISH GOVERNMENT (HMG) AGENCIES CORRESPOND WITH SECNAVES/PANAMA IN THIS FASHION AND HAVE HAD NO PROBLEMS WITH LOST MAIL. HE COULD NOT EXPLAIN WHY LETTERS SENT THROUGH THE MFA INFORMING THE STATE DEPARTMENT OF SANCTIONS IMPOSED WERE NOT REACHING THE DEPARTMENT. PREVIOUSLY, (REF B) SECNAVES ADMITTED BEING LAX IN INFORMING THE USG OF MARPOL ANNEX V SANCTIONS.

9. COMMENT: POST SUGGESTS THAT DEPARTMENT LOOK INTO USE OF INTERNATIONAL MAIL OR OTHER EXPEDITIOUS ROUTES FOR TRANSMISSION OF SUSPECTED MARPOL VIOLATIONS TO SECNAVES/PANAMA. WHILE EMBASSY DOES NOT HAVE TO HAVE ACTION, IT WOULD STILL NEED TO BE KEPT IN THE LOOP.)

TABLE I

VESSELS SANCTIONED FOR
MARPOL V VIOLATIONS

VESSEL	DATE OF INFRACTION	NO. AND DATE OF SECNAVES RESOLUTION
CISCO-L/538327	02 MAY 92	603-04-265-ALCN,

		16 SEPT 92
PALIMA-L8806345 (NAME CHANGED TO LIMARI)	10 MAR 92	603-04-309 ALCN, 5 NOV 92
CAVALIER-L8106379	02 FEB 91	603-04-310-ALCN, 5 NOV 92
KYOKUHO LILY-L8412639	SEP 91	603-04-43-ALCN, 6 MAR 92
BLUE COAST I-L7051321	07 FEB 90	603-04-153-ALCN, 26 JUNE 90
SEA BEACH-L7017521	22 MAR 90	603-04-155-ALCN, 28 JUN 90
TRADEWIND EXPRESS-L8504636	22 MAR 90	603-04-259-ALCN, 14 SEPT 92
TRADE EVER-L7610347	03 APR 90	603-04-209-ALCN, 23 AUG 90
TRADE RESOLVE-L7328839	12 OCT 89	603-04-162-ALCN, 5 JUL 90
ALKYONIS-L7507162	26 OCT 89	603-04-240-ALCN, 12 OCT 90
CHIOS FAITH-L7112565	08 DEC 89	603-04-161-ALCN, 6 JUL 90
JOVIAN/LOOP	UNKNOWN	603-04-172-ALCN

TABLE II

VESSELS NOT SANCTIONED

VESSEL	DATE OF ALLEGED INFRACTION
PETROJAN NAVAGATOR-L8014966	24 JAN 91
CORAL GRACE-L8312148	22 FEB 91
GOLDEN CHARIOT-L7128954	22 FEB 91
LISA D-CG-026509	27 FEB 91
BRUNA-L7023388	12 MAR 90
MARITIME JOY-L7603277	05 APR 90
JUNIOR GRANT I-L7035016	05 APR 90
CARRIBEAN HIGHWAY-L8003476 (NAME CHANGED TO BARCELONA)	13 MAY 90
HOLIDAY-L8217081	23 AUG 89
MARINE II-L7501431	22 MAR 90
DISCOVERY-L7005081	21 JUN 89
LUNAMAR II-L7903251	09 MAR 91
SETO BREEZE-CG027492	27 FEB 91
SANKO SOUTH-L8307064	22 FEB 91
TENSHOO-L8105725	11 FEB 1
VICK YUK-L8029430	04 SEP 91

TABLE III

REPORTS NOT RECEIVED BY SECNAVES

VESSEL	DATE OF INFRACTION
WESTERN FUTURE-L8373214	16 OCT 91
MARIE B-L7306336	16 MAY 91
RAFAELAS-L7328253	26 JUL 91
RIOCHACHA-L7112010	01 MAR 90
BRITANIS-L5229223	07 MAY 90
SHOUN EMPEROR-L8300494	01 DEC 89

TABLE IV

VESSELS NO LONGER REGISTERED IN PANAMA

VESSEL	DATE OF INFRACTION
BLUE FLAME-L851792	25 MAR 91
MARTI GRAS-L5103936	23 AUG 89
CARNIVALE-L5103924	23 AUG 89
AFSAR-L7341960	13 FEB 90

HINTON

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PAGE 01        PANAMA  04224  01 OF 02  181616Z
ACTION OES-09

INFO  LOG-00    ACDA-17   AID-01    AMAD-01   ARA-01    CEQ-01    CG-00
      CIAE-00   CIP-10    COME-00   C-01      OASY-00   DINT-05   DODE-00
      DOEE-00   ITCE-00   DOTE-00   EB-01     E-01      FMC-02    HA-09
      H-01      TEDE-00   INR-00    IO-19     ITC-01    JUSE-00   L-03
      ADS-00    NASA-02   NAS-01    NSAE-00   NSCE-00   NSF-02    OIC-02
      OMB-01    PA-02     PM-02     PRS-01    P-01      SNP-00    SP-00
      SS-00     STR-16    TRSE-00   TST-00    T-00      USIE-00   EPAE-00
        /113W
                   ------------------C0EA91  181906Z /38
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181616Z MAY 93
M AMEMBASSY PANAMA
O SECSTATE WASHDC 0438

NCLAS SECTION 01 OF 02 PANAMA 04224

.O.12356: N/A
AGS: SENV, IMO, PHSA, EWWT, PM
UBJECT: gop outlines marpol annex v enforcement measures

ef: a) state 59661 b) panama 876

. Post has received a letter from panama's ureau of consular and maritime affairs (secnaves) egal advisor jorge rosas, replying to our inquiry s to measures the gop is taking to ensure mproved future compliance with marpol annex v by anamanian flag vessels. The letter outlines the

op's implementation of inspection procedures including contracting of inspectors) as a method improve annex v compliance. End comment.

. An informal embassy translation of the letter llows.

gin text:

public of panama
nama, may 12, 1993
inistry of the treasury
reau of consular and maritime affairs

te no. 603-01-280-Alcn

. Maureen quinn

economic counselor
embassy of the united states
panama city

ms. Quinn:

in response to your letter of april 7, 1993, i am writing to inform you that the bureau of consular and maritime affairs has put into practice a series of measures designed to ensure that panamanian flag ships comply with the rules of the international convention against maritime pollution by ships, 1973/78.

the most important of these measures is the contracting of port inspectors overseas, who, in the name of the government of panama, will carry out inspections of panamanian flag ships at an international level, and ensure compliance with the regulations of marpol annex v.

These inspectors serve a function of vigilance and oversight of panamanian ships, carrying out periodic inspections and forwarding the results of these inspections to the bureau of consular and maritime affairs.

These results are carefully studied and analyzed by the personnel of the technical department, and once the infraction and the events surrounding it have been determined, we proceed to impose a sanction on the owners of the ship for violating marpol annex v.

In the hope of having satisfied your request, we take leave of you, attentively,

jorge alberto rosas,
chief legal advisor
end text.

3. Begin spanish text of note no. 603-01-280-Alcn:

republica de panama
panama, 12 de mayo de 1993

(166) SENATOR LAUTENBERG: Do you consider the steps taken by the Government of Panama toward improved enforcement of MARPOL Annex V to be adequate? If not, why not? What additional steps would you like to see undertaken on the part of the Panamanian government?

ADMIRAL KIME: The Panamanian government has indicated by their message of 181616Z MAY 93 that they are going to start a vessel inspection program. This is an encouraging first step.

We have started to see an increase in the number of Panamanian violation notifications which receive acknowledgment and report of government action taken. Since January 1992, the Department of State has notified the Coast Guard of nine responses from Panama where previously there had only been one. I would like Panama to acknowledge all violation reports, investigate all such reports, take appropriate corrective actions, and notify the country that filed the report.

PANAMANIAN EFFORTS TO ENSURE COMPLIANCE WITH MARPOL V

(167) SENATOR LAUTENBERG: Panama recently conveyed a letter to the State Department outlining action that the Government of Panama is taking to ensure compliance with MARPOL V. The most notable action is the implementation of inspection procedures including the contracting of port inspectors overseas. (AMEMBASSY PANAMA msg R 181616Z May 93) Given the Government of Panama's past history of limited enforcement, is Coast Guard satisfied that these recent efforts by the Panamanians will be effective?

ADMIRAL KIME: We find the steps that Panama is taking encouraging, however, it is too early to judge the effectiveness of these efforts. We will continue to monitor this situation.

(168) SENATOR LAUTENBERG: Who will perform the overseas inspections referred to? Does not Panama currently have flag state representative inspectors (either class society or non-exclusive surveyors) who inspect Panamanian registered ships overseas? Are those different from and in addition to those inspectors that currently perform overseas inspections for the Government of Panama?

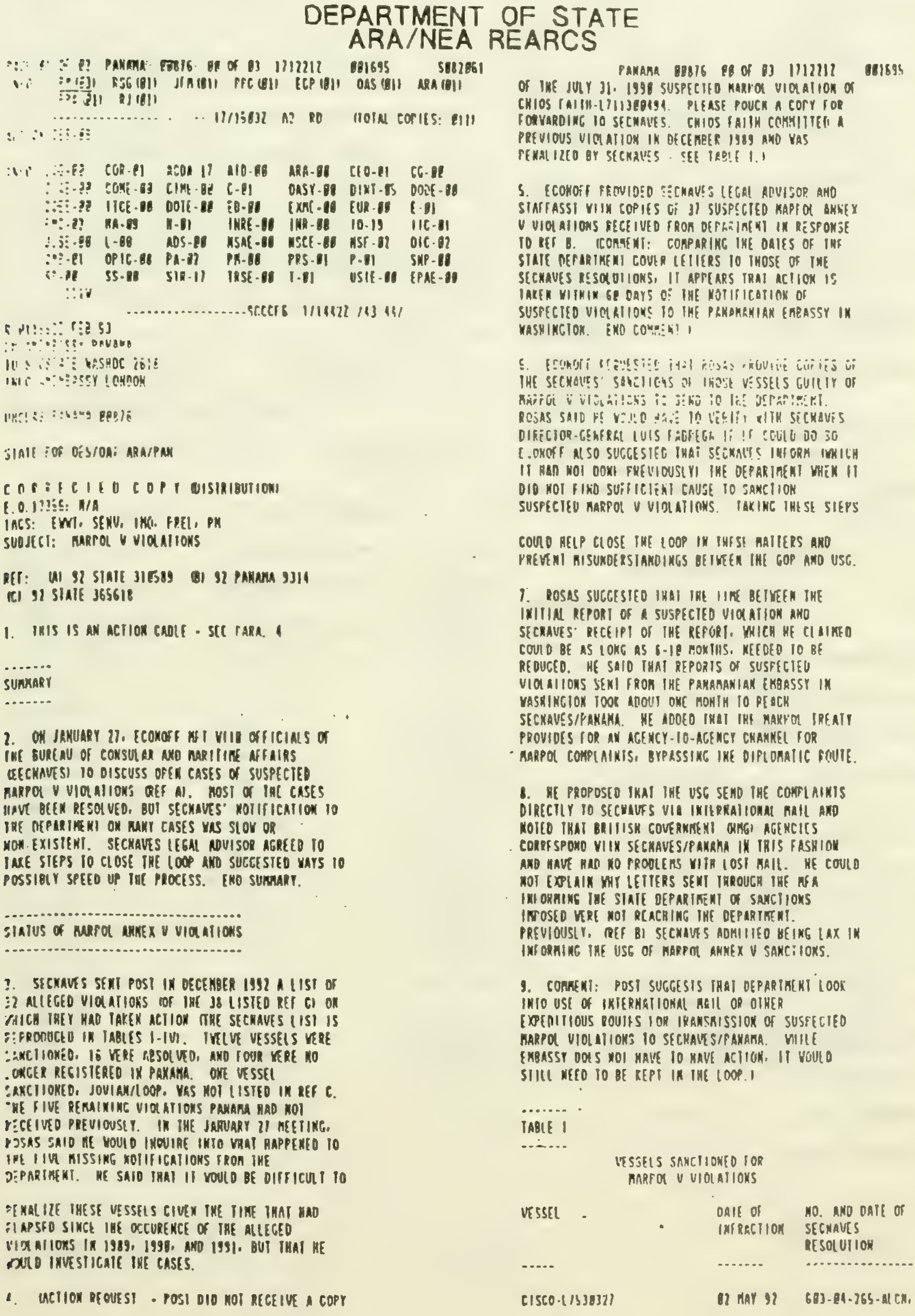
ADMIRAL KIME: The letter from the Panama Bureau of Consular and Maritime Affairs, translated by the U.S. Embassy in Panama and provided in AMEMBASSY PANAMA R 181616Z May 93, is unclear as to whether additional overseas port inspectors will be contracted for, or whether the scope of work will be expanded for the existing flag state representative inspectors (either class society or non-exclusive surveyors) who inspect Panamanian registered ships overseas. At the 34th session of the International Maritime Organization's Marine Environmental Protection Committee from July 5-9 1993, the U.S. delegation attempted to clarify Panama's intent.

Due to the composition of the Panamanian delegation and their lack of background on the issue, we were unable to get a full answer from them. However, through our Marine Safety Liaison Officer to the Republic of Panama we were able to learn that existing flag state representative inspectors who inspect Panamanian registered ships overseas have been tasked with the additional duties of carrying out inspections to ensure compliance with the regulations of MARPOL V. Contracting new inspectors is not contemplated.

(169) SENATOR LAUTENBERG: Is there any indication by the Government of Panama that once these inspectors find a problem, the Government will assess an appropriate penalty to encourage compliance?

ADMIRAL KIME: The letter from the Panama Bureau of Consular and Maritime Affairs translated by the U.S. Embassy in Panama provided in AMEMBASSY PANAMA R 181616Z May 93, indicates that the "inspectors [will] serve a function of vigilance and oversight of Panamanian ships, carrying out periodic inspections and forwarding the results of these inspections to the Bureau...These results are carefully scrutinized and analyzed by the personnel of the technical department, and once the infraction and the events surrounding it have been determined, we proceed to impose a sanction on the owners of the ship for violating MARPOL Annex V." The evidence shown in the attached roster of vessels sanctioned, based on MARPOL Annex V violations reported to them by the U.S., supports the belief that Panama will impose sanctions.

In the past, Panama has not submitted the annual report of penalties imposed for the infringement of the MARPOL Convention required by Article 11 (1)(f) of the Convention. At the 34th session of the International Maritime Organization's Marine Environmental Protection Committee from July 5-9 1993, the U.S. delegation will encourage Panama to submit the annual report.



DEPARTMENT OF STATE
ARA/NEA REARCS

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[illegible] [illegible] RSG(01) JFM(01) PFC(01) ECP(01) OAS(01) ARA(01)
        [illegible] RJ(01)
        ------------------ . -- 17/1503Z A2 RD (TOTAL COPIES: 011)
[illegible]

[illegible] [illegible]  COR-01   ACDA 17  AID-00   ARA-00   CEO-01   CG-00
        [illegible]  COME-03  CIME-02  C-01     OASY-00  DINT-05  DODE-00
        [illegible]  ITCE-00  DOTE-00  EB-00    EXMC-00  EUR-00   E-01
        [illegible]  HA-09    H-01     INRE-00  INR-00   IO-19    IIC-01
        [illegible]  L-00     ADS-00   NSAE-00  NSCE-00  NSF-02   OIC-02
        [illegible]  OPIC-00  PA-02    PM-00    PRS-01   P-01     SNP-00
        [illegible]  SS-00    SIR-17   TRSE-00  T-01     USIE-00  EPAE-00
          [illegible]
                    ------------------SCCCF6 171442Z /43 45/
R [illegible] FEB 93
[illegible] PANAMA
TO [illegible] WASHDC 2615
INFO [illegible] LONDON
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UNCLAS [illegible] 00876

STATE FOR OES/OA; ARA/PAN

C O R R E C T E D C O P Y (DISTRIBUTION)
E.O. 12356: N/A
TAGS: EWWT, SENV, IMO, PREL, PM
SUBJECT: MARPOL V VIOLATIONS

REF: (A) 92 STATE 310589 (B) 92 PANAMA 9314
(C) 92 STATE 365618

1. THIS IS AN ACTION CABLE - SEE PARA. 4

SUMMARY
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2. ON JANUARY 27, ECONOFF MET WITH OFFICIALS OF THE BUREAU OF CONSULAR AND MARITIME AFFAIRS (SECNAVES) TO DISCUSS OPEN CASES OF SUSPECTED MARPOL V VIOLATIONS (REF A). MOST OF THE CASES HAVE BEEN RESOLVED, BUT SECNAVES' NOTIFICATION TO THE DEPARTMENT ON MANY CASES WAS SLOW OR NON-EXISTENT. SECNAVES LEGAL ADVISOR AGREED TO TAKE STEPS TO CLOSE THE LOOP AND SUGGESTED WAYS TO POSSIBLY SPEED UP THE PROCESS. END SUMMARY.

STATUS OF MARPOL ANNEX V VIOLATIONS
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3. SECNAVES SENT POST IN DECEMBER 1992 A LIST OF 32 ALLEGED VIOLATIONS (OF THE 38 LISTED REF C) ON WHICH THEY HAD TAKEN ACTION (THE SECNAVES LIST IS REPRODUCED IN TABLES I-IV). TWELVE VESSELS WERE SANCTIONED, 16 WERE RESOLVED, AND FOUR WERE NO LONGER REGISTERED IN PANAMA. ONE VESSEL SANCTIONED, JOVIAN/LOOP, WAS NOT LISTED IN REF C. THE FIVE REMAINING VIOLATIONS PANAMA HAD NOT RECEIVED PREVIOUSLY. IN THE JANUARY 27 MEETING, ROSAS SAID HE WOULD INQUIRE INTO WHAT HAPPENED TO THE FIVE MISSING NOTIFICATIONS FROM THE DEPARTMENT. HE SAID THAT IT WOULD BE DIFFICULT TO PENALIZE THESE VESSELS GIVEN THE TIME THAT HAD ELAPSED SINCE THE OCCURENCE OF THE ALLEGED VIOLATIONS IN 1989, 1990, AND 1991, BUT THAT HE WOULD INVESTIGATE THE CASES.

4. (ACTION REQUEST - POST DID NOT RECEIVE A COPY

PANAMA 00876 02 OF 03 171221Z 001695

OF THE JULY 31, 1990 SUSPECTED MARPOL VIOLATION OF CHIOS FAITH-L7113E0494. PLEASE POUCH A COPY FOR FORWARDING TO SECNAVES. CHIOS FAITH COMMITTED A PREVIOUS VIOLATION IN DECEMBER 1989 AND WAS PENALIZED BY SECNAVES - SEE TABLE I.)

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		14 SEPT 92
TRADE EVER-L7618347	03 APR 90	603-04-209-ALCN, 23 AUG 90
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JOVIAN/LOOP	UNKNOWN	603-04-172-ALCN

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VESSELS NOT SANCTIONED

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GOLDEN CHARIOT-L7128954	22 FEB 91
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LUNAMAR II-L7903251	09 MAR 91
SETO BREEZE-CG027492	27 FEB 91

SANKO SOUTH-L[illegible]	22 FEB 91
TENSHOO-L8425725	11 FEB 1
YICK YUK-L8025430	04 SEP 91

TABLE III

REPORTS NOT RECEIVED BY SECMAVES

VESSEL	DATE OF INFRACTION
[illegible]	[illegible]
MARIE H-L7355336	16 MAY 91
RAFAELAS-L7328253	26 JUL 91
RIOCHACHA-L7112016	01 MAR 90
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SHOUN EMPERIOR-L8300454	01 DEC 89

TABLE IV

VESSELS NO LONGER REGISTERED IN PANAMA

VESSEL	DATE OF INFRACTION
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MARTI GRAS-L5103036	23 AUG 89
CARNIVALE-L5103924	23 AUG 89
AFSAR-L7341960	13 FEB 90

HINTON

(170) SENATOR LAUTENBERG: Panama recently conveyed a letter to the State Department outlining action that the Government of Panama is taking to ensure compliance with MARPOL V. The most notable action is the implementation of inspection procedures including the contracting of port inspectors overseas. (AMEMBASSY PANAMA msg R 181616Z May 93) Please provide an updated history of each Panamanian violation over the past two years citing ship, date and location of violation, and response of flag state. Please also provide a list of enforcement actions taken by the U.S. under U.S. law since the new procedure has been in place. Please cite the vessel, date and location of violation, and the recommended and collected fine.

ADMIRAL KIME: During CY 1991 and CY 1992, 33 MARPOL V violation cases were forwarded to Panama for enforcement action. The first list below provides information about those cases, including any responses from Panama that have been forwarded to our office from the Department of State.

The Coast Guard has taken action against Panamanian vessels in 13 MARPOL V violation cases since July 1992, when a new enforcement policy was adopted. At that time, the Coast Guard began taking enforcement action under U.S. law, including referral to the Department of Justice, for all suspected MARPOL V violations that have occurred within the U.S. Exclusive Economic Zone. Prior to July, Coast Guard policy was to forward cases involving vessels of signatory nations to the flag State administration for investigation and enforcement. The policy shift was made as a result of a poor communication and a lack of aggressive enforcement on the part of flag States. The second attached list provides details of the 13 Coast Guard cases against Panamanian vessels.

MARPOL ANNEX V VIOLATIONS FORWARDED TO PANAMA
CY 1991 AND CY 1992

VESSEL	DATE	VIOLATION LOCATION	FLAG STATE RESPONSE
CAVALIER	2/2/91	UNKNOWN	FINE ISSUED
TENSHOO	2/11/91	UNKNOWN	NONE
SANKO SOUTH	2/22/91	UNKNOWN	NONE
GOLDEN CHARIOT	2/22/91	UNKNOWN	NONE
CORAL GRACE	2/22/91	UNKNOWN	NONE
SETO BREEZE	2/27/91	UNKNOWN	NONE
LISA D	2/27/91	UNKNOWN	NONE
LUNAMAR II	3/9/91	UNKNOWN	NONE
MARINE II	3/22/91	UNKNOWN	NONE
BLUE FLAME	3/25/91	UNKNOWN	NONE
MARIE H	5/16/91	UNKNOWN	NONE/SHIP CHANGED REGISTRY
RAFAELA S	7/26/91	UNKNOWN	NONE
ENCHANTED ISLE	8/24/91	UNKNOWN	NONE
ENCHANTED ISLE	8/25/91	UNKNOWN	WARNING ISSUED
YICK LUK	9/4/91	UNKNOWN	NONE
INAGUA TANIA	9/10/91	UNKNOWN	LTR OF REPRIMAND ISSUED
KYOKUHO LILY	9/14/91	UNKNOWN	NONE
CAP TRIUNFO	10/2/91	UNKNOWN	NONE
BRITANIS	10/11/91	OUTSIDE EEZ	NONE
LUCKY FIELD	10/11/91	UNKNOWN	MASTER/CREW REPRIMANDED
MARITIME FRIENDSHIP	2/3/92	UNKNOWN	LTR OF REPRIMAND ISSUED
NEWAYS	2/8/92	UNKNOWN	MASTER/CREW REPRIMANDED
PALIMA	3/10/92	UNKNOWN	FINE

VESSEL	DATE	VIOLATION LOCATION	FLAG STATE RESPONSE
TRADEWIND EXPRESS	3/22/92	UNKNOWN	NONE
CROWN FROST	5/7/92	UNKNOWN	NONE
CISCO	5/20/92	UNKNOWN	NONE
FANDANGO	7/4/92	UNKNOWN	NONE
GALLANT II	7/29/92	UNKNOWN	NONE
OLIVEBANK	9/2/92	UNKNOWN	NONE
RAFAELA S	9/10/92	UNKNOWN	NONE
CORAL I	10/3/92	UNKNOWN	NONE
DOLPHIN IV	11/1/92	BAHAMIAN WATERS	NONE
SEABREEZE I	12/8/92	OUTSIDE EEZ	NONE

MARPOL V VIOLATION CASES INITIATED BY COAST GUARD AGAINST PANAMANIAN VESSELS SINCE ADOPTION OF NEW ENFORCEMENT POLICY
(July - December 1992)

VESSEL	DATE	VIOLATION LOCATION	RECOMMENDED CIVIL PENALTY	PENALTY ASSESSED
BAKRI ADVENTURER	7/1/92	HOUSTON SHIP CHANNEL	$500	$5,000
DANG DELIMA	7/22/92	U.S. WATERS	$500	DISMISSED
LUCKY OCEAN NO. 1	7/23/92	U.S. WATERS	$100	CLOSED/NOT PROVED
TONINA	8/6/92	U.S. WATERS	$500	DISMISSED
SEABREEZE I	9/24/92	OFF PR/ VIRGIN IS	N/A	REFERRED TO JUSTICE DEPT
MSC ALEXANDRA	9/29/92	U.S. WATERS	$5,000	DISMISSED
SEA CHASE	10/28/92	U.S. WATERS	---	WARNING ISSUED
CROWN JEWEL	11/3/92	DEL. RIVER	$25,000	$25,000
JIN HUI	11/19/92	OFF CALIF	$10,000	$10,000
CROWN JEWEL	12/7/92	U.S. WATERS	---	ACTION PENDS
SEABREEZE I	12/17/92	OFF PR/ VIRGIN IS	N/A	REFERRED TO JUSTICE DEPT
PRIMATIST	12/24/92	U.S. WATERS	$500	DISMISSED
SEABREEZE I	12/29/92	OFF FLA KEYS	N/A	REFERRED TO JUSTICE DEPT

REPORT ON PANAMA'S MARPOL ENFORCEMENT EFFORTS

(171) SENATOR LAUTENBERG: Last year's appropriations bill required the Secretary of Transportation, with the Coast Guard and the Secretary of State, to submit a report to the Congress no later than March 15 on what steps have been taken by Panama to improve its enforcement record, as well as what steps have been taken by the U.S. government in prosecuting MARPOL V violations of Panamanian flag ships under U.S. law. Why is this statutorily required report three months late? What can you tell me as to why we have not seen the report to date?

ADMIRAL KIME: The report is being prepared jointly by the Department of State and the Department of Transportation (DOT) and not by the Coast Guard. The Coast Guard has provided Office of the Secretary of Transportation with preliminary statistics on enforcement actions taken against foreign vessels in the Exclusive Economic Zone. We have been informed that the report is currently in its final stages of review by the Secretary.

MARPOL V EDUCATION PROGRAM

(172) SENATOR LAUTENBERG: Please describe your MARPOL V education program in detail. Please provide a detailed accounting of the resources committed to this program and the changes in resources committed to this program over the last five years.

ADMIRAL KIME: The Coast Guard is working with the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Information Office, the International Maritime Organization, the World Bank, the Texas General Land Office, the Environmental Protection Agency's (EPA) Gulf of Mexico Program, the New Jersey, Texas and Louisiana Sea Grant Programs, the Department of State, the Center for Marine Conservation, the Marine Mammal Commission and several other Federal and State agencies to implement educational programs to promote awareness and compliance with Coast Guard marine environmental protection regulations and MARPOL convention regulations. These educational programs seek to implement education and awareness among commercial fishing vessel operators, recreational boaters, marina operators, shipping agents, cruise line operators, the Wider Caribbean Region, the general public, grade school children and their parents, as well as Coast Guard regulars, reservists and auxiliarists.

Commercial fishing vessel, recreational boaters and marina operators will be targeted under two pilot outreach programs, one on the East Coast and the other on the Gulf Coast of the U.S. The Coast Guard Auxiliary, through its boating safety training course, Courtesy Motorboat Examination and Fishing Vessel Examination programs, Marine Dealer Visit program, and other appropriate forums, will implement the program by incorporating and delivering educational and outreach materials aimed at enhancing compliance with national and international marine environmental protection regulations.

Other initiatives include the following:

Working with the World Bank, the Coast Guard coordinated and supported a MARPOL Annex V enforcement workshop in Corpus Christi, Texas in April 1993, to support the World Bank's Organization of Eastern Caribbean States Waste Management Project. This World Bank project will establish comprehensive waste management strategies for the Eastern Caribbean States.

The Coast Guard will participate, through IMO, in the World Bank's Wider Caribbean Initiative on Ship Generated Waste.

In FY 92, the Coast Guard funded the Subcommission for Caribbean and Adjacent Regions' (IOCARIBE) Action Plan to promote accession to the MARPOL Annex V.

A project to develop a manual for shipping agents, waste haulers, and port reception facilities operators to promote compliance with MARPOL Annex V.

Through two Strategy Sessions with district marine safety and marine environmental protection officers, Coast Guard program managers highlighted the need for regional MARPOL outreach and education programs to promote compliance.

The Fourteenth District has initiated a number of MARPOL initiatives to promote understanding of MARPOL issues within the District, and sponsored several Public Service Announcements to improve public compliance with MARPOL Annex V in the Hawaiian Islands.

The Coast Guard has supported the development and nationwide distribution of an educational coloring book called "Officer Snook" (developed in coordination with the Seventh Coast Guard District) and has contracted with the Center for Marine Conservation to produce two other student instructional workbooks with marine environmental protection messages.

In February 1993, the Coast Guard established a MARPOL Coordinating Committee initiative to bring together key MARPOL stakeholders to discuss MARPOL implementation and coordination among agencies. Participants include, Coast Guard, Department of State, EPA, NOAA's Marine Entanglement Program, Department of Agriculture, New Jersey Sea Grant Program, Marine Mammal Commission, Texas General Land Office, Congressional staff, Texas General Land Office, the recreational boating industry, and the cruise line industry.

Prior to FY 1992 there were no specific MARPOL outreach activities. In FY92, $30,000 was obligated and two positions were dedicated to MARPOL outreach intitatives. An additional $250,000.00 was obligated in FY93 to support this program.

ILLEGAL DUMPING OF SEWAGE

(173) SENATOR LAUTENBERG: Do all Marine Safety Offices periodically conduct unannounced boardings of various commercial and recreational vessels to determine compliance with sewage dumping laws? If not, why not? If so, what do these unannounced boardings reveal concerning compliance?

ADMIRAL KIME: The Coast Guard does not conduct unannounced boardings specifically to determine compliance with sewage dumping laws. However, the Coast Guard regularly boards both commercial and recreational vessels to check for compliance with safety, navigational, and pollution equipment requirements. Checking for properly functioning marine sanitation devices (MSD) is part of these inspections. The boardings are generally unannounced and are done as part of the Coast Guard's boarding program or as the result of a specific complaint or incident. Boarding statistics for recreational vessels indicate that there is a high level of compliance with the MSD requirements. For example, of the 1,870 recreational vessels boarded in the Ninth Coast Guard District during 1992, only 9 were found to be in violation.

(174) SENATOR LAUTENBERG: Has MSO Pittsburgh been aware of any sewage dumping violations in the last five years? Of those incidents, how many resulted in civil penalty action? If violations existed where a civil penalty was not initiated, please indicate the number of violations and the reasons for not pursuing a civil penalty.

ADMIRAL KIME: MSO Pittsburgh is aware of sewage dumping violations occurring in the last two years. In 1992 MSO Pittsburgh received a complaint from the Waterways Association and a number of anonymous tips that some towboats were not using a proper Marine Sanitation Device (MSD). As a result of those specific complaints in 1992 the MSO boarded five towboats and found two MSD violations. Each of these violations resulted in a $2,000 civil penalty. To date in 1993, 26 towboats have been boarded resulting in the detection of eight MSD violations. Of these eight, four had assessments of a $2,000 penalty, one was assessed a $1,000 penalty, two cases were closed by the unit and one case remains in processing at the unit. Both cases closed to file were done so at the discretion of the Captain of the Port. In the first case, the MSD was missing its certification label but was properly functioning. In the other case, the MSD was under repair at the time of the boarding.

(175) SENATOR LAUTENBERG: Does MSO Pittsburgh believe that no sewage dumping violations are occurring within their zone? If so, why were towboats randomly boarded last March? If not, why have no citations been issued in the last five years?

ADMIRAL KIME: No. MSO Pittsburgh knows that sewage dumping violations have occurred within their zone. The events reported in the previous question discuss the actions taken against violators.

DELINQUENT SHIPS

(176) SENATOR LAUTENBERG: You have previously noted to this committee your efforts to draw attention to the entire world community as to the flag of individual delinquent ships, the classification society, and the specific violations. Please give examples of such cases that you have brought to the attention of IMO in the last year. Please list the relevant vessel, date and nature of violation, flag state, and classification society.

ADMIRAL KIME: Port State Reports on Deficiencies for individual vessels are submitted to IMO by member countries. These reports are summarized and provided to the members at meetings of the Maritime Safety Committee (MSC). MSC 61 decided to include consideration of deficiency reports as part of the newly formed Flag State Implementation Sub-Committee's work program. The most recent deficiency report dated 9 February 1993, contained information from deficiency reports submitted by the U.S. about our intervention action on 12 vessels. These vessels, their flag state, and classification society are listed below. Copies of the individual Port State Report on Deficiencies for these vessels are submitted for your information. These reports provide basic information on the vessel, list the nature of the deficiencies noted, and briefly describe the action taken.

Vessel	Flag	Classification Society
MC GEM	Bahamas	Bureau Veritas
CHRISTOPHER	Belize	HINSIB*
SOFIA	Belize	HINSIB*
SOUTH CALM	Cyprus	Bureau Veritas
JED CARRIER	Honduras	Maritime Inspection Corporation
SINGA SUN	Liberia	Lloyd's Register of Shipping
YANNIS	Panama	Bureau Veritas
TANYA V	Panama	HINSIB*
TRUST 38	Panama	American Bureau of Shipping
NEPTUNE SIRIUS	Singapore	Lloyd's Register of Shipping
KEY I	Singapore	Nippon Kaiji Kyokai
SEABOARD TRADER	Venezuela	Lloyd's Register of Shipping

* Horizon International Naval Surveying and Inspection Bureau

[CLERK'S NOTE.--Due to its size, the document entitled, ''Port State Report on Deficiencies,'' does not appear in the hearing but is available for review in the subcommittee files.]

(177) SENATOR LAUTENBERG: At the International Maritime Organization, information is presented on violations that are found by other countries and what level of compliance is found by those other countries, as well as their enforcement actions. Please provide what data is available on the number of violations and the level of compliance found by other countries to major treaties and rules violations, as well as information on the enforcement action taken by those nations.

ADMIRAL KIME: A standard agenda item at meetings of the International Maritime Organization (IMO) Maritime Safety Committee is a discussion of deficiency reports. A table of deficiency reports received by the Secretariat of the Committee six months prior to every session is prepared for consideration. The table summarizes the reports received from the member countries.

A copy of the latest International Maritime Organization summary of deficiency reports is submitted for your information. Annex 1 summarizes the 220 reports received before 24 November 1992. Flag State comments received by IMO before 1 February 1993 on previous and current deficiency reports are summarized in annex 2. A list of outstanding flag State comments on deficiency reports submitted up to December 1992 is set out in annex 3. A summary of deficiencies listed according to SOLAS regulation is provided in annex 4. Annex 5 indicates the number of deficiencies counted for each chapter of the SOLAS Convention.

[CLERK'S NOTE.--Due to its size, the document entitled, ''International Maritime Organization Summary of Deficiency Reports,'' does not appear in the hearing but is available for review in the subcommittee files.]

MARPOL ANNEX III

(178) SENATOR LAUTENBERG: With the entry into force of MARPOL Annex III on July 1, 1992, how has initial compliance been? Please provide a list of all violations cited by Marine Safety Offices and indicate subsequent enforcement actions.

ADMIRAL KIME: Implementation of Annex III will occur through establishment and enforcement of regulations contained in Title 49 CFR Subchapter C (the Hazardous Materials Regulations). These regulations are under the purview of the Research and Special Programs Administration (RSPA). The Coast Guard worked closely with RSPA in the development of a Final Rulemaking on implementation of Annex III. This final rule was published in the Federal Register on November 5, 1992. Although the rule lists an effective date of January 1, 1993, mandatory compliance is not required until October 1, 1993.

In view of the October 1, 1993, mandatory compliance date, it is too early to assess the level of compliance with Annex III and the new regulations. No violations of Annex III have been cited to date.

MARPOL AIRCRAFT ENFORCEMENT PATROLS

(179) SENATOR LAUTENBERG: Do you intend to implement these flights as part of the regular operating missions of all Coast Guard aircraft in all regions of the country? Please describe this program in detail.

ADMIRAL KIME: Coast Guard aviation has always been an integral part of our pollution prevention enforcement program. We believe the deterrent presence of overt and covert aircraft is one of the most effective ways to accomplish our marine environmental protection goals. In early FY93, we reinstituted a program to use Coast Guard aircraft to conduct dedicated enforcement patrols for all marine environmental protection missions including MARPOL enforcement.

(180) SENATOR LAUTENBERG: Have you been successful in assessing higher civil penalties against violations based on visual proof from your aircraft? What results have your initiatives achieved?

ADMIRAL KIME: Detection of MARPOL violations by aerial surveillance has no direct correlation to the size of civil penalties assessed. However, Coast Guard aircraft are an important asset in our efforts to deter, detect and prosecute MARPOL violations. Our use of aviation assets for MARPOL enforcement has increased our ability to conduct surveillance of larger areas within Coast Guard jurisdiction.

(181) SENATOR LAUTENBERG: What measures of effectiveness are used to determine if the resource investment is productive and justified?

ADMIRAL KIME: During law enforcement and other missions, Coast Guard aviation resources are employed to support MARPOL efforts. Measures of Effectivness (MOE's) for these operations are being studied. We expect to have preliminary MOEs in place in early FY94. By the end of FY94 we should be able better assess the benefit of aircraft enforcement patrols

MARPOL RECORD BOOKS

(182) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks that you will be presenting a proposed amendment to the Marine Environmental Protection Committee of the IMO making waste record books mandatory under the MARPOL Convention. Under a best-case scenario, what amount of time would be required to elapse before this proposed amendment could be enacted under the MARPOL Convention?

ADMIRAL KIME: Under Article 16 of the MARPOL 73/78 Convention, the minimum time period for an amendment to enter into force is twenty-two months. The time sequence is as follows:

The U.S. delegation proposed the amendment at the 34th session of the International Maritime Organization's Marine Environment Protection Committee. The amendment was broadly supported in principle, but several delegations expressed that they were not ready to approve the amendment for circulation without further study and discussion. One commenting country did not have a problem with MARPOL V compliance in their waters and consequently they were unsure of the need for the amendment.

Our delegation felt that pressuring the Committee for approval may have led to outright defeat of the proposal. The Committee agreed to establish a correspondence group, chaired by the U.S., to receive comments during the intersessional period with a view toward preparing an acceptable amendment for approval at MEPC 35 in March 1994. This course of action is commonly used to gain consensus for new amendments to IMO conventions. We are guardedly confident that an amendment developed under this process will be approved. Once approved, it will be circulated to the MARPOL parties by the IMO Secretariat.

Six months after circulation, the amendment can be adopted into the Convention, but it must be voted on by the MEPC. This could take place during MEPC 36, tentatively scheduled for November 1994.

After a minimum of a ten-month period from the date of adoption, the amendment is deemed to be accepted by the MARPOL parties, unless they have objected to the amendment. One third of the MARPOL Parties or MARPOL Parties representing 50 per cent of the world's gross register tonnage must object to the amendment during this ten-month period for the amendment to be defeated.

Once the amendment is accepted, there is a six-month period prior to entry into force. That would mean that the earliest this amendment could go into force would be August 1995.

(183) SENATOR LAUTENBERG: Would a certain number of nations be required to adopt the amendment before it came into force?

ADMIRAL KIME: No. The amendment is to be accepted by the MARPOL parties, unless one third of the MARPOL parties or MARPOL parties or representing 50 per cent of the world's gross registered tonnage, object to the amendment during the first ten-months after adoption. The tacit amendment process specified in Article 16 of the MARPOL 73/78 Convention obviates the need for Parties to specifically adopt amendments to MARPOL Annexes.

(184) SENATOR LAUTENBERG: What is the likely time frame between which the amendment could be adopted by the full IMO Assembly and the requisite number of member nations adopt the amendment before the amendment could come into force internationally?

ADMIRAL KIME: Under Article 16 of the MARPOL 73/78 Convention, the full IMO Assembly is not required to act on this amendment nor are member nations required to explicitly adopt it. The amendment is deemed to be accepted by the MARPOL parties, unless it is objected to by one third of the MARPOL parties or MARPOL parties representing 50 per cent of the world's gross registered tonnage during the first ten-months after adoption. The Marine Environment Protection Committee of the IMO is given jurisdiction for amendments to MARPOL. The earliest date an amendment could come into force would be August 1995.

CITIZEN INVOLVEMENT/OUTREACH FOR MARPOL VIOLATIONS

(185) SENATOR LAUTENBERG: What are your plans for further implementing the outreach requirements under the law?

ADMIRAL KIME: As discussed previously, the Coast Guard is working with other Federal and State agencies, the international community and environmental organizations to improve MARPOL Annex V compliance. A key element of this program is to educate the marine community and cruise ship passengers of their responsibilities under the law, and what they should do to report violations. Key elements of our plans include:

1. Under contract to NOAA's Marine Debris Information Office on behalf of the Coast Guard, the Center for Marine Conservation is preparing a "Citizen Reporting" campaign to advise the public, through relevant media and public service announcements of the existence of the toll-free number to call when they observe marine pollution. This toll free number to notify the National Response Center (NRC) of pollution incidents has been in place since 1974. The toll free service number, 800-424-8802 and the commercial number 202-267-2675 are listed in most telephone books nationwide under "Other Emergency Numbers: Pollution, Toxic Chemical and Oil Spills." The NRC accepts calls for all pollution incidents including marine debris. The Coast Guard will continue to use existing numbers to accept calls reporting marine debris. Telephone system upgrades have been made to increase NRC's capacity to handle an expected increase in calls.

2. A Coast Guard Auxiliary educational program targeted at commercial fishing vessel operators, recreational boaters and marina operators, on the marine debris problem and how violations should be reported.

3. An internal education program for all Coast Guard members, to raise awareness of the marine debris problem and actions to take when they receive reports of marine debris from the public.

DERELICT VESSELS

(186) SENATOR LAUTENBERG: In May of this year Marine Safety Office Providence began investigating derelict vessels beached at Fish Island, New Bedford, Massachusetts to determine if they pose a spill threat. What other Marine Safety Offices/Captains of the Port (COTP) have not yet surveyed all derelict vessels within their zones to determine if they pose a pollution threat? Why have their surveys not been previously accomplished?

ADMIRAL KIME: In August of 1991, the Coast Guard directed field units to identify vessels within their zones which could be used for disposal of waste products and to assess their actual threat to the environment. In October 1991, all MSO's, including Providence, and COTP's completed a survey concerning abandoned vessels in their zones. This remains an ongoing requirement for our field units. Local knowledge of the various federal, state, and local agencies, aerial surveys and small boat patrols have been used to identify and determine the status of abandoned vessels.

The investigation you are referring to was part of the ongoing program to determined if conditions justified a more extensive site assessment. The assessment determined that, although there were no active discharges of oil or hazardous substances, the potential for future releases existed and justified cleanup actions. Cleanup actions and an investigation of this case are ongoing.

(187) SENATOR LAUTENBERG: By what date will all Captain of the Ports have surveyed all derelict vessels to determine the threat they pose to the environment?

ADMIRAL KIME: COTP's continuously survey all derelict vessels identified within their zones to determine the threat they pose to the environment. As the condition of derelict vessels and sites change over time, continuous monitoring is required. The level of the assessment required depends upon the imminence and significance of the threat. Often deterioration of a vessel's condition or subsequent illegal dumping may require an increased level of assessment or cleanup action.

In October 1991, all COTP's completed a survey of abandoned vessels in their zones. In March 1993, the Coast Guard requested that the Army Corps of Engineers provide lists of abandoned vessels from each of the their district offices. The Corps of Engineers inventory will be used as a starting point to identify possible deficiencies in the Coast Guard inventory. We are awaiting receipt of this data from the Corps of Engineers.

The Coast Guard intends to conduct an abandoned barge pollution risk assessment survey in fiscal year 1994. A survey of the locations and conditions of abandoned barges will be conducted to determine the extent of the abandoned barge problem and the potential impact on Coast Guard resources. This survey will update inventories of abandoned barges and lead to further enforcement action under the Abandoned Barge Act, the Clean Water Act and CERCLA.

(188) SENATOR LAUTENBERG: How many derelict vessels now exist in ports throughout the country where oil or hazardous materials on board pose a potential pollution threat? When will the threat that these vessels pose be removed?

ADMIRAL KIME: In a July 1992 General Accounting Office report, "Coast Guard: Abandoned Vessels Pollute Waterways and Cost Millions to Cleanup and Remove", the Coast Guard estimated that there were 1,276 abandoned vessels on U.S. waters. Based on a search of National Pollution Fund Center case management data base, the Coast Guard estimates that there are 24 ongoing cases involving cleanup of oil or hazardous substances from abandoned vessels.

We cannot provide a date when the threat posed by derelict vessels containing oil or hazardous substances will be removed. Derelict vessels require an ongoing effort since they can be used as illegal dump sites. Vessels found containing oil or hazardous substances which pose an imminent threat of significant harm are acted on immediately. Waste materials are removed and some vessels are destroyed to prevent their subsequent use for illegal dumping. There is no known backlog of vessels in this category posing a significant threat to the public and the environment.

ABANDONED BARGES

(189) SENATOR LAUTENBERG: Please describe the results of your investigation to determine the scope and magnitude of the problem where out-of-service, abandoned, or other barges are used for illegal storage of waste oil and other hazardous materials. Please list the number and locations of the barges discovered in your investigation, and describe the subsequent enforcement actions taken.

ADMIRAL KIME: In August of 1991, the Coast Guard began a program to identify and assess the enviornmental threat of vessels which could be used for illegal storage of waste products. Federal, state, and local agencies used aerial surveys and small boat patrols to identify these abandoned vessels.

By initally focusing on port areas and adjacent critical waterways, such as the Intercoastal Waterway, we identified approximately 1300 abandoned vessels, including 643 barges. The following list is a breakdown of the abandoned barge statistics, by Coast Guard district:

Coast Guard District 1	33
Coast Guard District 2	264
Coast Guard District 5	61
Coast Guard District 7	15
Coast Guard District 8	266
Coast Guard District 9	0
Coast Guard District 11	4
Coast Guard District 13	0
Coast Guard District 14	0
Coast Guard District 17	0
TOTAL	643

The above data was subsequently verified by a polling of field units conducted in May 1993. Most of these barges are along the inland rivers, Gulf and East coasts. A survey of the spills from all abandoned vessels, over a period of two years and nine months, shows a total of 96 actual spills or imminent threats, of which 15 are attributed to barges. Our initial assessment indicates that few of these vessels pose a significant threat to the environment.

Barges found containing oil or hazardous substances are acted on immediately. Waste materials are removed and some barges are destroyed to prevent their subsequent use for illegal dumping. There is no known backlog of barges in this category posing a significant threat to the public and the environment.

MARITIME INDUSTRY QUALITY ASSURANCE INITIATIVES

(190) SENATOR LAUTENBERG: Please provide an update of progress resulting over the last year from Coast Guard initiatives regarding "maritime industry quality assurance and safe ship operations."

ADMIRAL KIME: Results of Coast Guard initiatives are as follows:

1. Meetings and open communication with industry has helped to align our goals in a partnership promoting maritime safety and has assisted in formulating strategies to reduce costs to U.S. Flag vessels.
2. The Coast Guard's Maritime Regulatory Reform Staff has completed a strategic plan for implementation of the Coast Guard's vessel inspection reform.
3. Participation at the International Maritime Organization (IMO) has resulted in the development of an International Safety Management Code (ISM), which will be adopted this October as an Assembly Resolution.

We will publish a Navigation and Vessel Inspection Circular (NVIC) on quality assurance and safe ship operations by October of this year to implement the ISM as soon as it is adopted. This NVIC will incorporate the ISM and the work of the Maritime Regulatory Reform Staff into a "Quality Ship Management Program". We will continue to focus our efforts on working with the international industry to increase U.S. flag competitiveness, while maintaining high safety standards.

ATLANTIC STRIKE TEAM

(191) SENATOR LAUTENBERG: When was the Atlantic Strike Team in New Jersey fully staffed, and what unit billets have been filled and when?

ADMIRAL KIME: The Atlantic Strike Team was reestablished at Fort Dix, New Jersey in September 1991. With the exception of one billet*, it was fully staffed by the Summer of 1992. The following table shows the billets and when they were filled:

Billet	Filled
CDR	7/91
LCDR	7/91
LT	7/91
LTJG	7/91
ENS	12/92*
BOSN4	7/91
ENG4	8/91
F&S4	8/91
BMC	5/90
BM1	10/91
BM1	7/92
BM1	6/91
BM2	4/92
BM2	1/92
MK1	9/90
MK1	8/90
MK2	8/91
MK2	8/91
MK2	6/91
MK2	7/92
DCC	6/91
DC1	10/91

DC1	10/91
DC2	9/91
DC2	8/92
EM1	6/91
YN1	9/91
SK1	8/91
SK2	3/92
SK3	8/91
MSTC	7/91
MST1	11/91
MST1	7/92
MST2	4/92

(192) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks that you have now identified property at Fort Dix which can permanently house the strike team. Please discuss in greater detail the arrangements for a permanent location for the Strike Team at Fort Dix?

ADMIRAL KIME: The Coast Guard will acquire approximately 20 acres of land through a no-cost permit from the Army Corps of Engineers. This includes two Army buildings on the property. In addition, the Coast Guard plans to fund construction of a third building in the FY 1995 timeframe. These buildings will house specialized equipment for the Atlantic Strike Team operations.

(193) SENATOR LAUTENBERG: Has a suitable enclosed storage/work facility for Atlantic Strike Team's pollution response equipment been secured? Are there any costs associated with indefinitely storing the response equipment outdoors? Are operational response capabilities affected by the current arrangement?

ADMIRAL KIME: A suitable enclosed equipment storage/work facility for Atlantic Strike Team (AST) pollution response equipment has not been secured. The Coast Guard has developed a proposal to build our own facility on Fort Dix property. The AST has repeatedly surveyed the local Fort Dix area for a suitable permanent storage/work facility for this equipment. A suitable facility has not been identified within a 30 mile radius of Fort Dix.

The AST has been in contact with the General Service Administration (GSA) and Fort Dix and McGuire Air Force Base (AFB) commands who have indicated that there is no vacant federal space, or vacant lease space under government control available to satisfy AST requirements for an equipment facility. Fort Dix was not addressed in the most recent report of the Defense Base Closure and Realignment Commission. The Commission recommended that McGuire AFB be kept open and the base is not scheduled to down-size. Neither Fort Dix nor McGuire AFB can offer any prospect of future availability of a facility suitable to meet the AST's needs.

The AST has also been in contact with a local Realtor to assist with searching for a suitable commercial warehouse but has been unable to identify a suitable facility of the size and type required.

We have compared leased vs construction options for the AST equipment facility and conclude that any geographic separation of the new facility from existing facilities provided by the Army would have a negative impact on the unit's operational capabilities. Specifically, these effects would include increases in response times, an inability to supervise and train personnel, significant loss in productive work time, reduction in security of equipment, and numerous daily back and forth trips on rural roads. Several of the AST's tractor trailer loads are over width, require permits for any non-emergency movement, and are prohibited on various bridges due to weight constraints. Unit efficiency would be seriously undermined as a result of limited communications and the inability to properly supervise activities at a separated facility. The Army at Fort Dix has provided existing buildings to house the AST shop spaces and administrative offices (approximately 18,300 square feet) and having the response equipment geographically separated severely detracts from any benefits derived using provided Army spaces.

A facility of approximately 40,000 square feet is required to properly store and maintain AST equipment. The facility must provide storage for the following equipment: fourteen 48'x10' trailers carrying oil recovery equipment ready for transport, mobile command posts, several boats, chemical response trailers, semi tractors, flatbed stake trucks, forklifts, and equipment pallets. A large indoor open area is required for maintaining the gear. The open bay should be equipped with an overhead bridge crane for use when performing maintenance on various pollution response gear. The facility should contain maintenance shop space for carpentry, welding, and electrical maintenance and repairs. The facility should also include a separate hazardous waste storage area for the safe, temporary storage of hazardous waste such as used motor oil, antifreeze, solvents, and paint. The facility must be immediately accessible 24 hours a day and should contain the following utilities and services: toilet and shower facilities; heating, ventilating and air-conditioning system; fire protection system; lighting; electrical power with emergency backup; telephone service; and a public address system. This facility must be collocated with the current administrative and shop spaces of the AST.

After numerous examinations and reexaminations of our options (lease, rentals, GSA space, other existing military properties) we remain convinced that the construction of an equipment facility at Fort Dix is the most reasonable option available.

SANTA CLARA I

(194) SENATOR LAUTENBERG: Please provide an update on the status regarding implementation of each of the Coast Guard Recommendations emanating from the Santa Clara I casualty.

ADMIRAL KIME: There were eight recommendations proposed as a result of the Coast Guard Board of Inquiry on the Santa Clara I casualty. Each recommendation and the status of each follows.

1. Develop, in coordination with the Research and Special Programs Administration(RSPA), a regulatory package to implement International Maritime Organization (IMO) Resolution A.714(17), Code of Safe Practice for Cargo Stowage and Securing, for all vessels transiting U.S. waters with dangerous cargo.

Status: We have not initiated action on domestic requirements pending the acceptance of our international proposals to the IMO regarding Resolution A.714(17).

2.Propose that the IMO improve Resolution A.714(17) in view of the detailed findings of this inquiry, and recommend that it be made mandatory under the International Convention for the Safety Of Life At Sea (SOLAS) Convention for ships carrying cargoes addressed by the Internationl Maritime Dangerous Goods (IMDG) Code.

Status: During the IMO Sub-Committee on Containers and Cargoes (BC) 32nd Session, the issues of improving the Code of Safe Practice for Cargo Stowage and Securing and considerations of making portions of this Code mandatory were addressed. The working group unanimously agreed that certain parts, (e.g.,sections 1.6, 1.7, 1.9 and 2.9) could and should be made mandatory. The Sub-Committee established an intersessional correspondence group, which the U.S. volunteered to coordinate, that will make a first review for subsequent consideration by the Sub-Committee.

3. Develop a compliance inspection program for securing gear and securing arrangements, addressing the need for complete securing before a ship leaves the dock or enters pilot waters inbound.

a. Propose to the International Association of Classification Societies that they make the design, construction and maintenance of container securing systems a condition of class for all container-carrying vessels.

b. Consider the use of the National Cargo Bureau to assist in operational inspections, to take advantage of existing expertise.

Status: Based on a U.S. proposal, the Bulk Cargo (BC) Sub-Committee has agreed to review the Code of Safe Practice for Cargo Stowage and Securing. The working group unanimously agreed that important portions of the Code should be made mandatory, which would form the basis of our enforcement program. The next meeting of the

Sub-Committee will be in April 1994 with final action in 1995. Once the standards are in place we will look to the National Cargo Bureau for assistance in enforcement of those standards in keeping with our Maritime Regulatory Reform initiatives.

4. Examine the failure and repair history for fiberglass reinforced plastic(FRP) containers to determine their suitability for continued unrestricted use.

Status: The BC Sub-Committee discussed, a review of the structural integrity standards of (FRP) containers. In addition, the Coast Guard is conducting a review of the repair and failure history of FRP containers in maritime transport to determine if additional requirements are necessary, and to determine their suitability for continued unrestricted use.

5. Develop a container inspection program for assessing the adequacy of blocking and bracing inside containers, and enforcing the existing regulations on packing.

Status: The Coast Guard has completed a draft policy establishing procedures for the inspection of packaged hazardous materials in intermodal containers. Container packing and stowage condition of hazardous materials for shipment, packaging standards, and structural integrity of freight containers are emphasized. To field test and evaluate the policy, three month pilot programs were established in the ports of New York and Los Angeles. The pilot programs were completed on June 30, 1993. However, the report will not be completed until August 1, 1993. Feedback and recommendations from the pilot inspection guidelines will be reviewed and included as appropriate in the final inspection guidelines which will be incorporated into the Coast Guard's Marine Safety Manual by the end of 1993.

6. Initiate a quantitative risk analysis regarding on-deck stowage of marine pollutants, in coordination with the IMO Subcommittee on the Carriage of Dangerous Goods.

Status: At the 61st Session of IMO's Maritime Safety Committee in December of last year the United States requested that the Committee instruct its Sub-Committee on the Carriage of Dangerous Goods (CDG) to conduct such a quantitative risk analysis. The Committee agreed to this request and the matter will be taken up at the next meeting of the CDG Sub-Committee in early 1994. The Coast Guard plans to conduct its own research in this area and submit a paper for that CDG meeting. A work statement has been developed, funding has been obtained, and the contract is close to being negotiated for completion of this study. The study will assess the risk of losing containers with marine pollutants overboard. In addition, the Coast Guard has actively worked with RSPA in the area of stowage provisions for marine pollutants. On 5 Nov 1992, RSPA published a final rule implementing the provisions of MARPOL Annex III that is intended to further reduce the hazard to the marine environment associated with the shipment of marine pollutants. Also, the Coast Guard is working with RSPA to study the feasibility of a container tracking system. RSPA conducted a study through the National Academy of Sciences on this issue and recently circulated the final report of the study. The Coast Guard is currently reviewing the report and its recommendations. The Coast Guard will provide input for the Secretary of Transportation's report to Congress on the study.

7. Refer the case to the Department of Justice (DOJ) for pursuit of any available criminal and civil penalties regarding the owner's failure to notify the Coast Guard of spilled hazardous materials below deck in Baltimore.

Status: This case was referred to DOJ and judicial proceedings under the Comprehensive Environmental Response Compensation and Liability Act have been filed for civil litigation and penalty collection.

8. Forward a copy of this report to the government of Panama, the International Maritime Organization, the International Association of Classification Societies, the National Cargo Bureau and Lloyd's Register of Shipping for information.

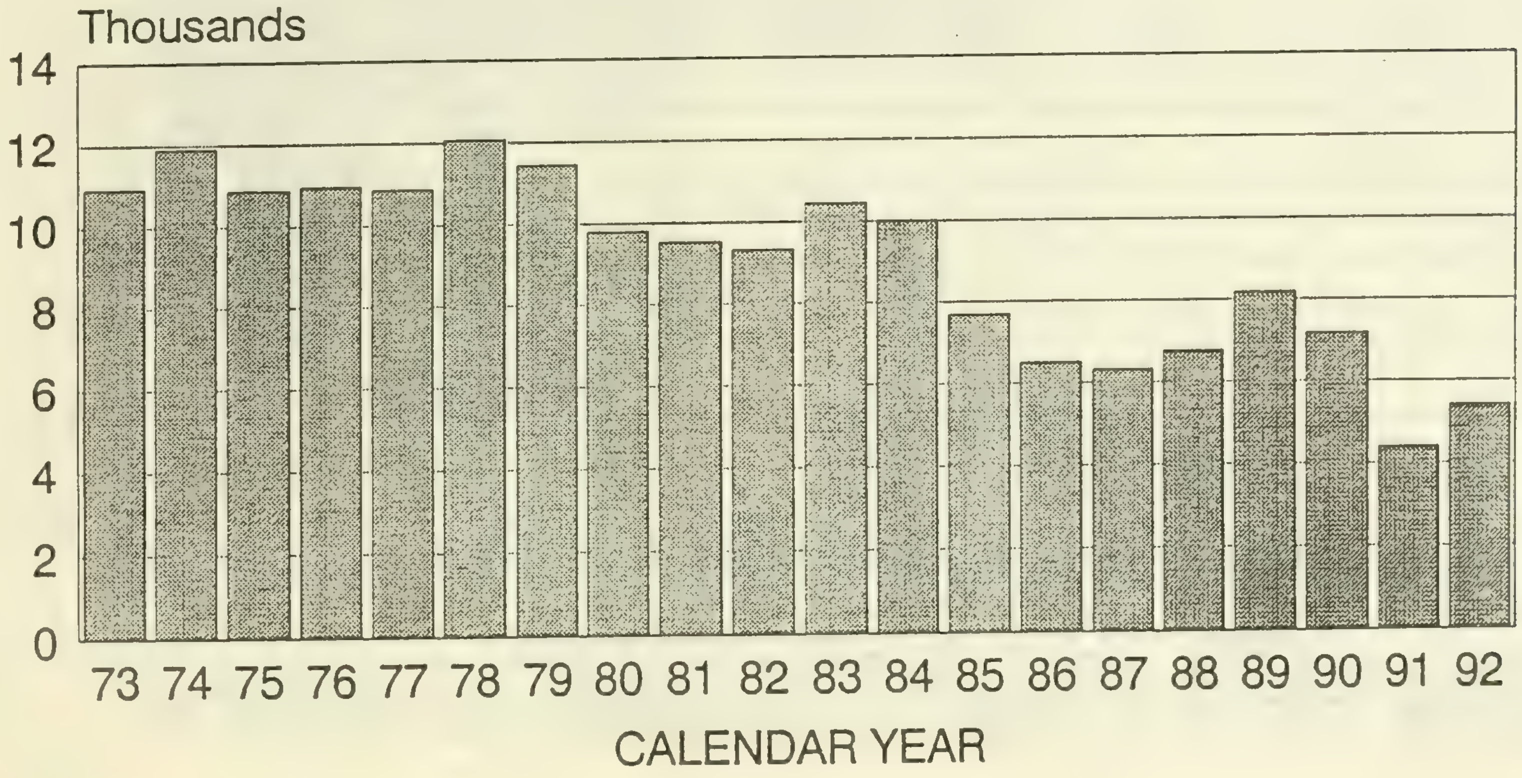
Status: Copies of the report were forwarded to the appropriate organizations.

SPILL DATA

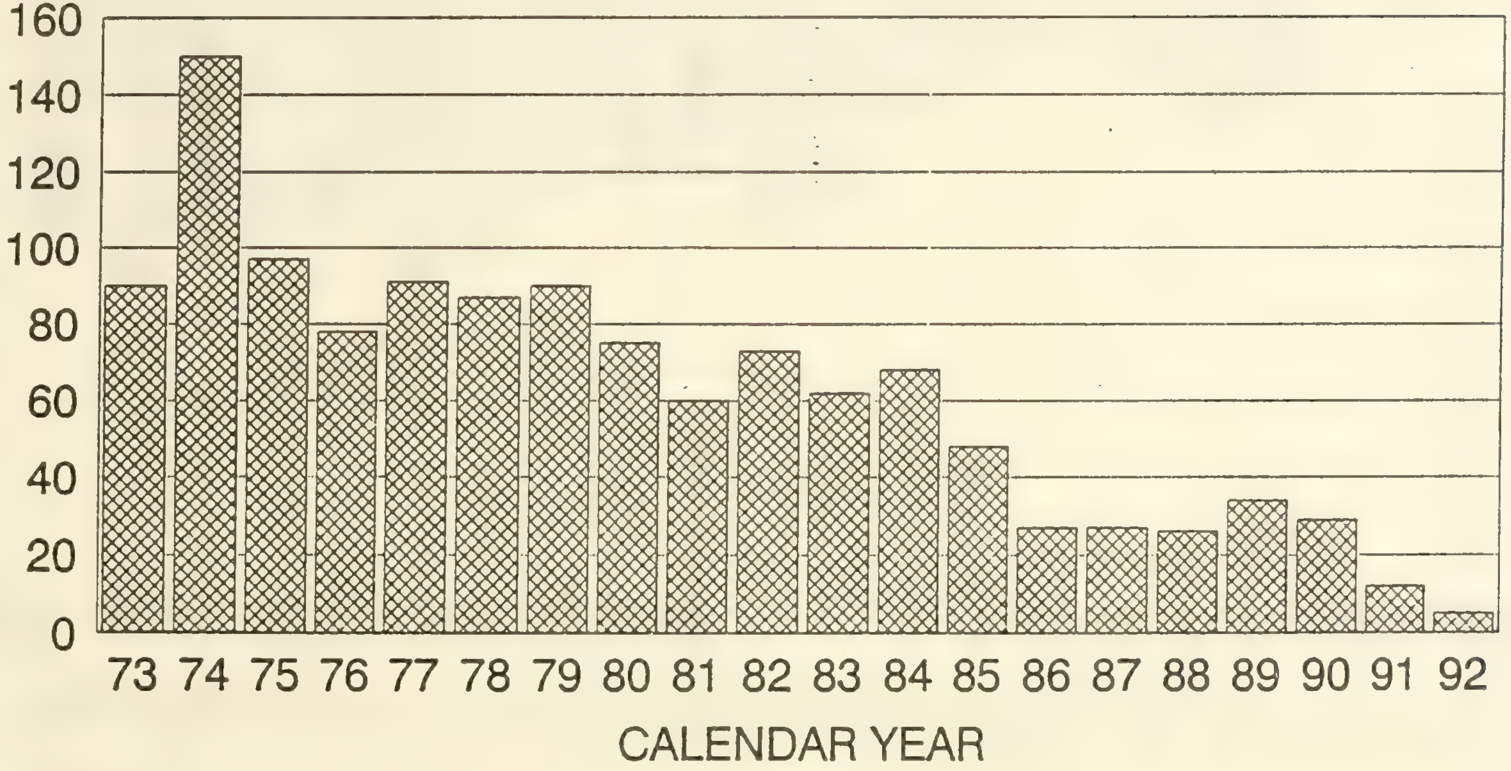
(195) SENATOR LAUTENBERG: Please provide relevant data to indicate the current trend in the number and volume of spills occurring in the U.S. Please update the tables from pages 70 through 77 of last year's hearing record.

ADMIRAL KIME: The information follows:

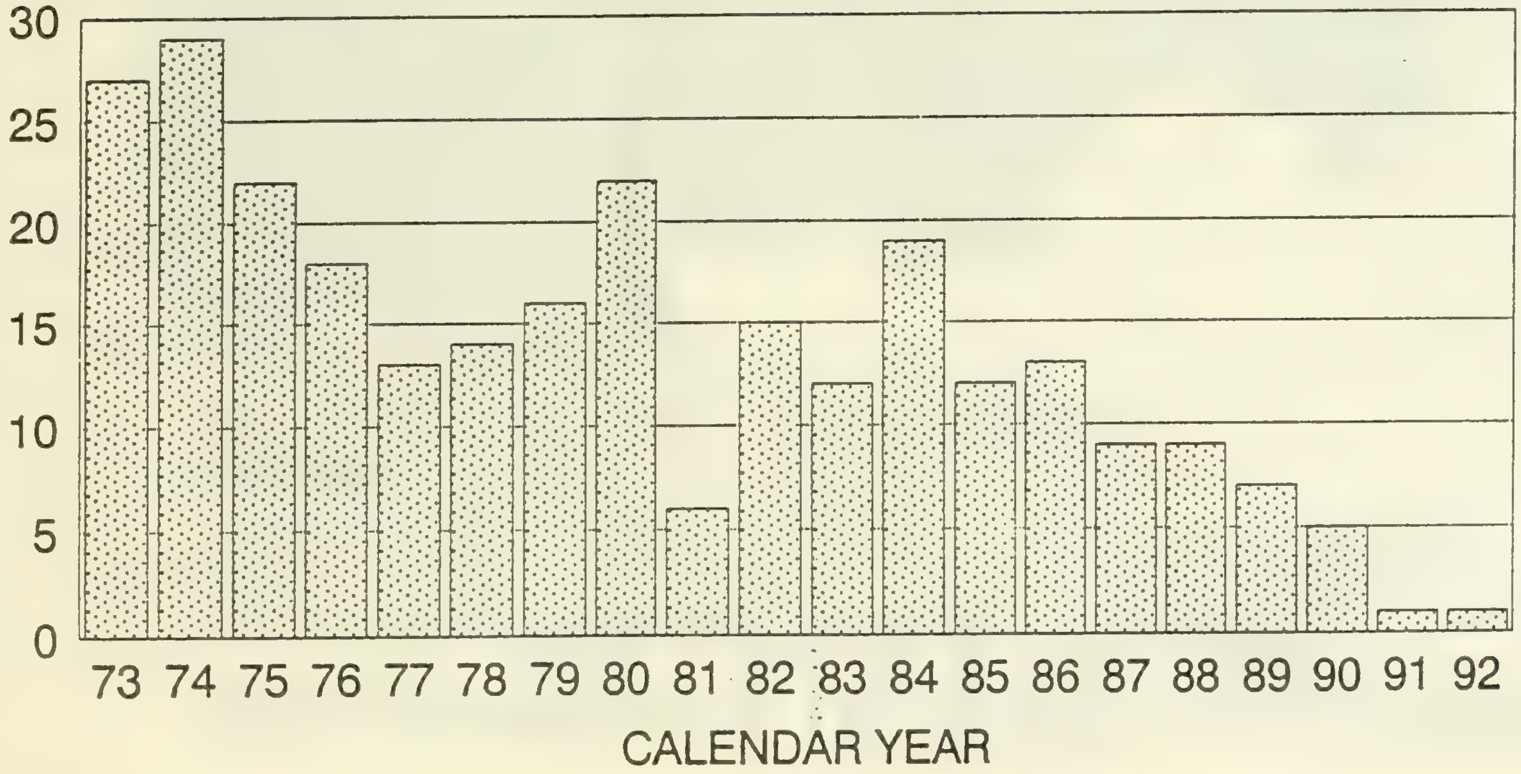
NUMBER OF SMALL OIL SPILLS IN U.S. WATERS FROM VESSELS 1973-1992 (0 TO 10,000 GALLONS)



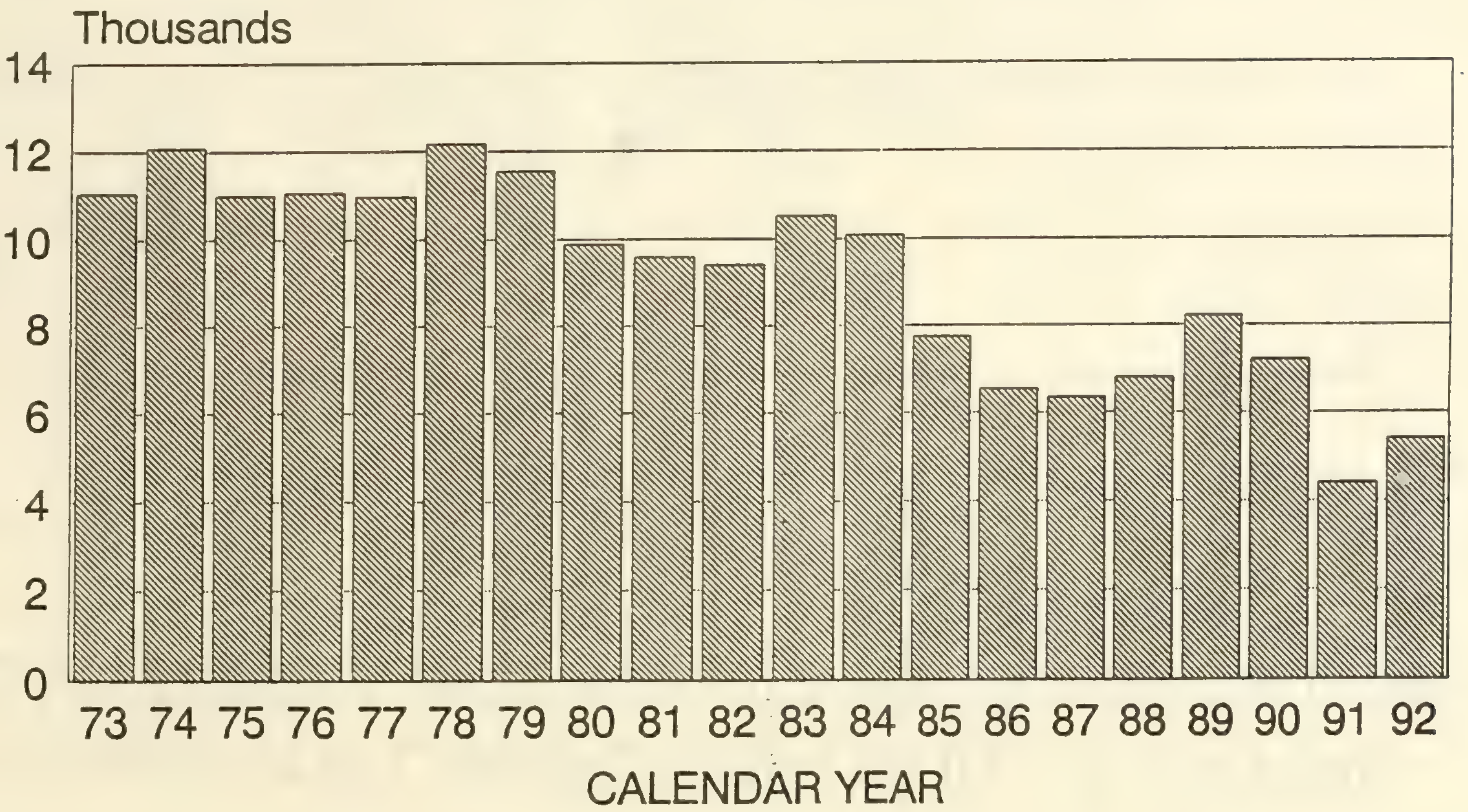
NUMBER OF MEDIUM OIL SPILLS IN U.S. WATERS
FROM VESSELS 1973-1992
(10,000 TO 100,000 GALLONS)



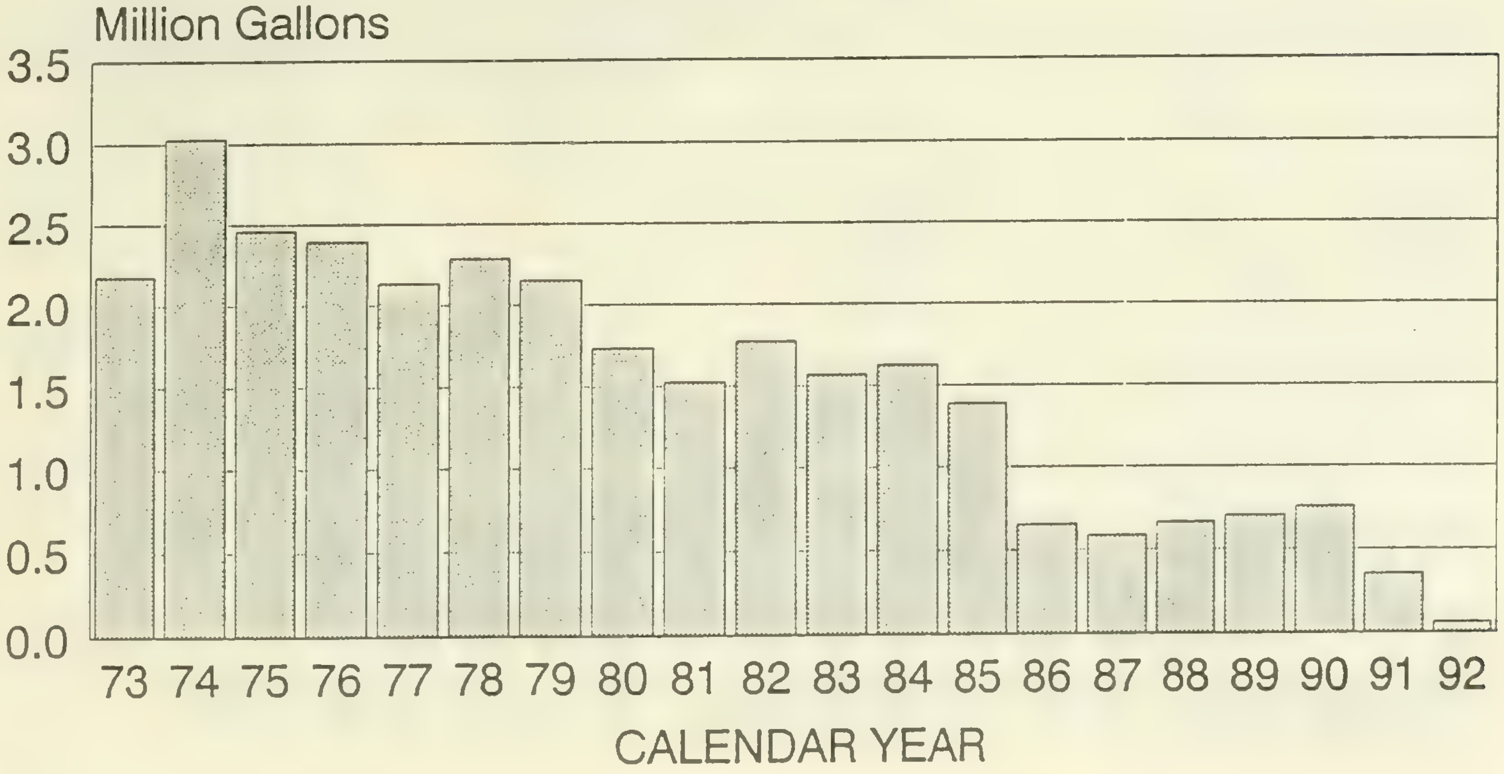
NUMBER OF LARGE OIL SPILLS IN U.S. WATERS FROM VESSELS 1973-1992 (OVER 100,000 GALLONS)



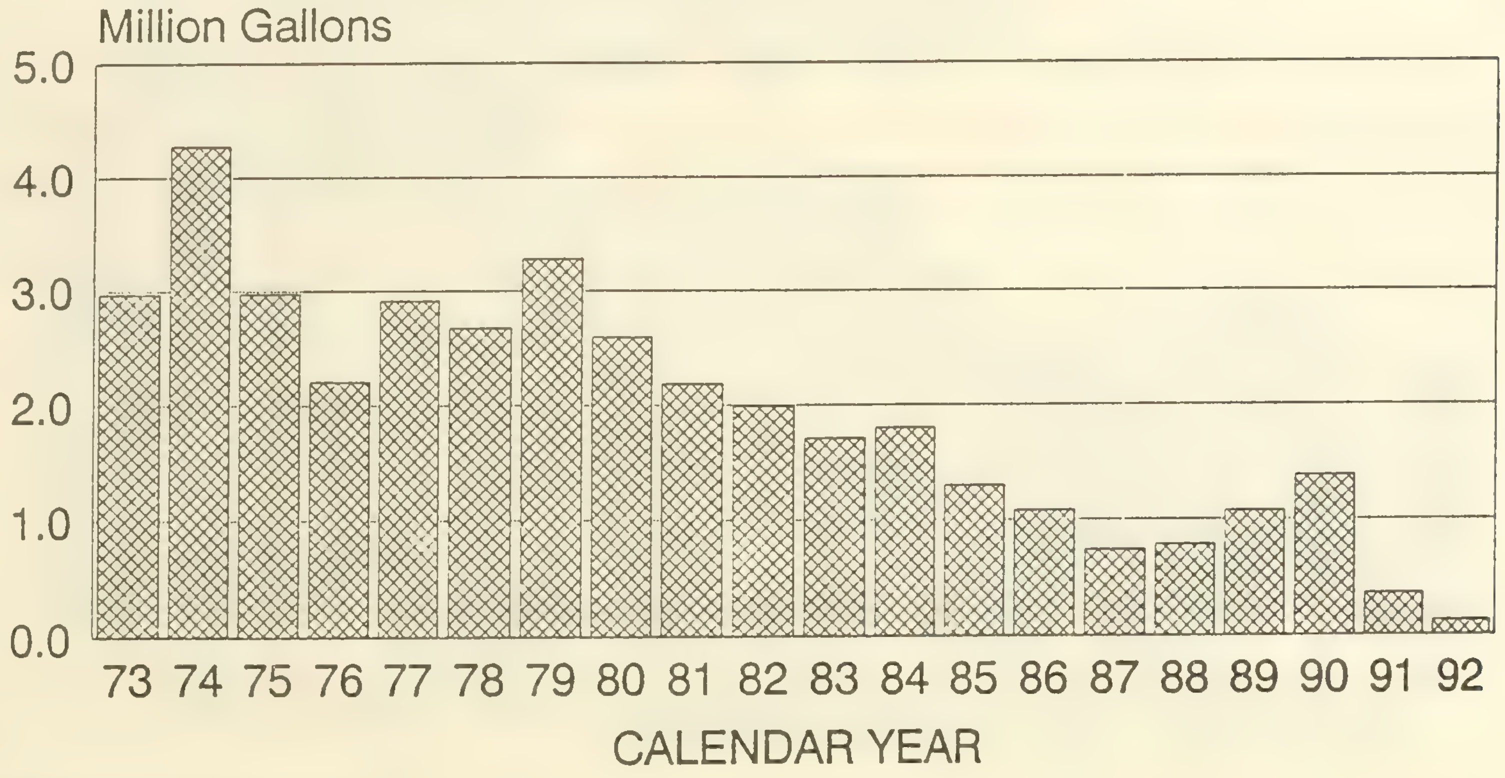
TOTAL NUMBER OF OIL SPILLS IN U.S. WATERS FROM VESSELS 1973-1992



VOLUME OF OIL SPILLED IN U.S. WATERS FROM VESSELS 1973-1992
SPILL SIZE = SMALL (0 TO 10,000 GALLONS)

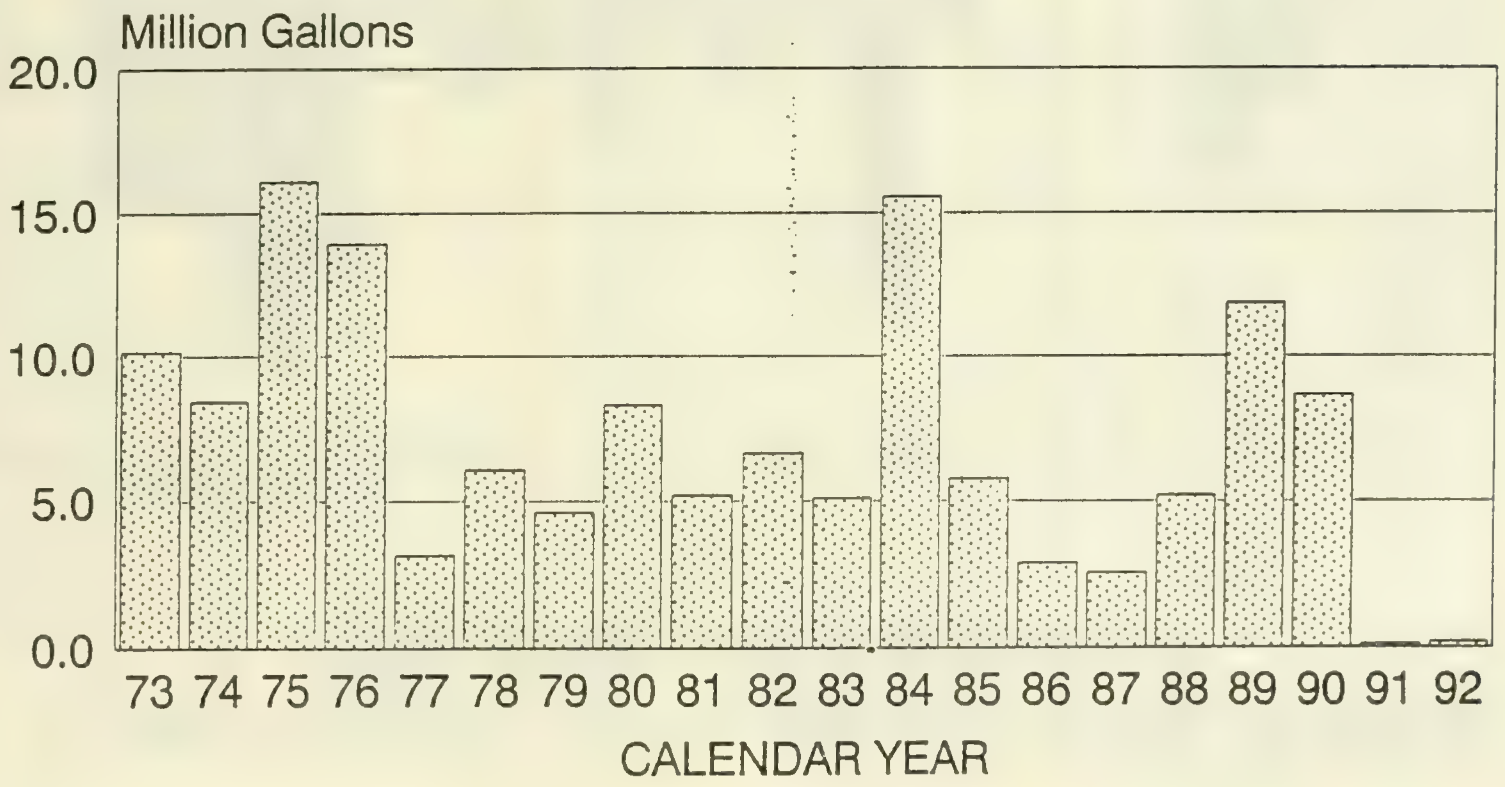


VOLUME OF OIL SPILLED IN U.S. WATERS FROM VESSELS 1973-1992 SPILL SIZE=MEDIUM (10,000 TO 100,000 GAL)

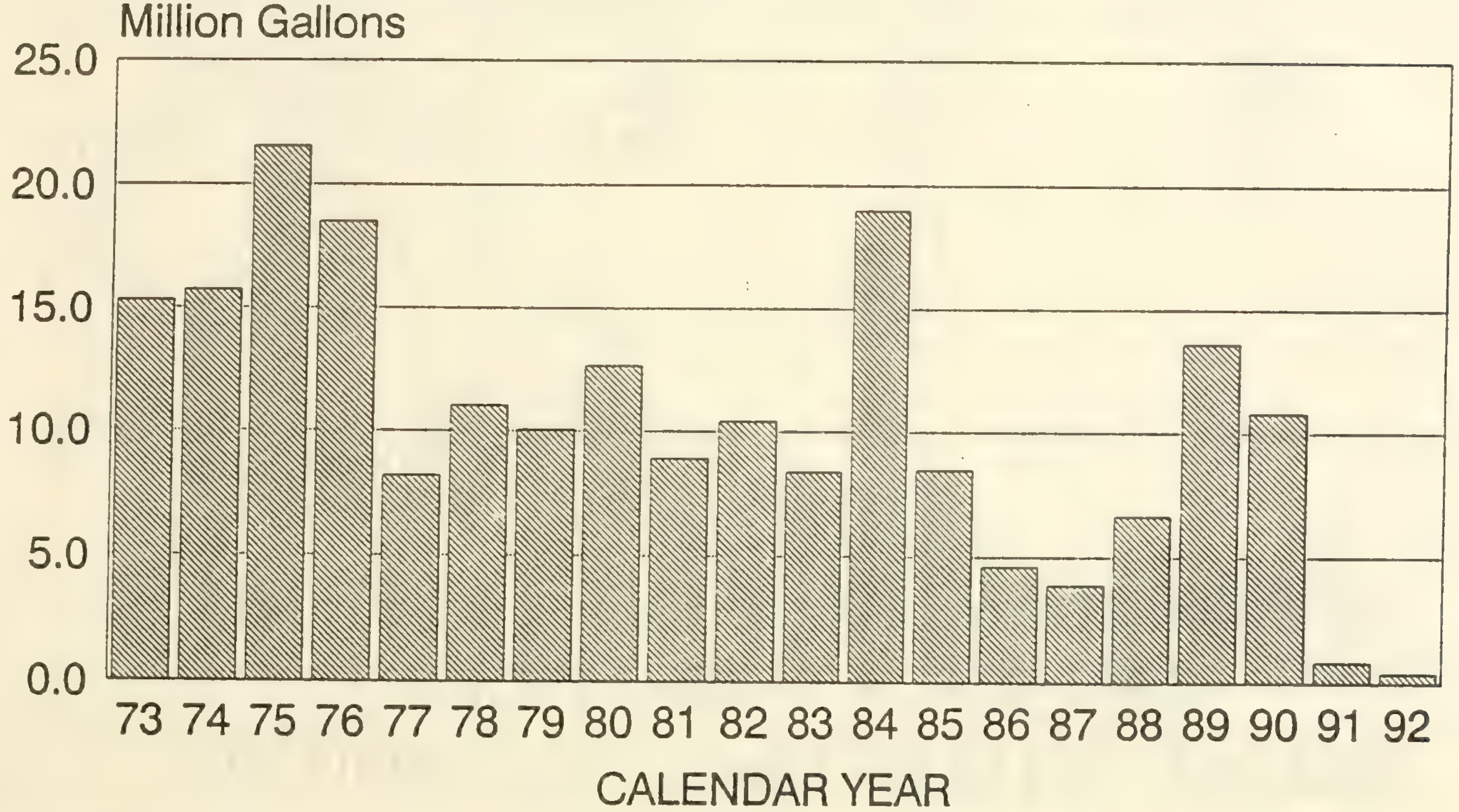


VOLUME OF OIL SPILLED IN U.S. WATERS FROM VESSELS 1973-1992

SPILL SIZE = LARGE (OVER 100,000 GAL)



TOTAL VOLUME OF OIL SPILLED IN U.S. WATERS FROM VESSELS 1973-1992



OIL SPILL DATA FOR THE PORTS OF NEW YORK AND PHILADELPHIA

(196) SENATOR LAUTENBERG: Please provide an up-to-date table back to 1985 for the Ports of New York and Philadelphia showing the total number of oil spills that occurred each year, the total gallons spilled, and the number of spills of at least 10,000 gallons and of at least 50,000 gallons.

ADMIRAL KIME: We have updated each table by performing a new search for each year listed. This table is different than previously published versions. The differences can be attributed to; differences in data queries, opened cases were closed out, spill estimates were revised, and errors in the data base were corrected.

Oil Spills In Captain of the Port Philadelphia zone

Year	No. of Oil Spills 10K to 50K Gal.	No. of Oil Spills Over 50K Gal.	Total No. of Oil Spills	Total Gallons Oil Spilled
1985	0	1	61	48,898*
1986	0	2	186	391,458
1987	0	0	204	29,715
1988	1	0	185	35,078
1989	0	1	217	331,672
1990	0	1	257	167,498
1991	0	0	288	8,801
1992	2	0	211	41,714

Oil Spills In Captain of the Port New York zone

Year	No. of Oil Spills 10K to 50K Gal.	No. of Oil Spills Over 50K Gal.	Total No. of Oil Spills	Total Gallons Oil Spilled
1985	1	1	229	126,621*
1986	2	3	356	333,058
1987	3	1	299	405,332
1988	2	1	266	134,503
1989	4	1	299	244,606
1990	4	4	421	1,162,360
1991	3	0	437	74,691
1992	2	0	193	46,880

* Complete information for 1985 is not available.

(197) SENATOR LAUTENBERG: Please update the tables on page 125 of last year's hearing record regarding petroleum spills by U.S. and foreign vessels.

ADMIRAL KIME: In an effort to be responsive, we have updated each table by performing a new search for each year listed. This has created a difference between this year's answer and last year's answer. Differences are primarily attributable to differences in data queries. Query parameters for previous years are not known. Fluctuation also occurs as opened cases are closed and spill estimates are revised or as errors in the data base are identified and corrected.

Number and Volume of Tankship Petroleum Oil Spills for Years 1985 to 1992

Year	# U.S. Incidents	Vol.U.S. Spilled	# Foreign Incidents	Vol. Foreign Spilled	Total Incidents	Total Volume Spilled
1985	30	240,043	37	502,735	67	706,778*
1986	97	34,277	123	1,055,444	220	1,089,721
1987	90	1,446,173	93	50,698	183	1,496,871
1988	109	55,041	139	795,108	248	850,149
1989	80	10,593,522	170	677,250	250	11,270,772
1990	92	735,203	213	4,242,106	305	4,977,309
1991	92	7,128	158	84,095	250	91,223
1992	69	4,251	126	113,567	195	117,818

* Indicates all information for this year not available.

MARITIME LAW ENFORCEMENT/NATIONAL SECURITY

LAW ENFORCEMENT CUTTER AND AIRCRAFT DAYS

(198) SENATOR LAUTENBERG: Please provide a table for FY 1990, 1991, 1992 and 1993 for each Coast Guard District the total number of cutter days (by cutter type) and aircraft hours (by aircraft type) devoted to law enforcement missions, with a further breakdown showing the time dedicated to drug interdiction, fisheries enforcement, immigration enforcement, etc.

ADMIRAL KIME: Historical data from fiscal year 1990 through the first quarter of fiscal year 1993, listing cutter and aircraft operating hours, by platform type and law enforcement activity, is provided. Cutter information is based on operating areas. Aircraft information is based on where the aircraft is permanently assigned.

[CLERK'S NOTE.--Due to its size, the document entitled, ''USCG Cutter Law Enforcement Hours,'' does not appear in the hearing but is available for review in the subcommittee files.]

AIRCRAFT HOURS

(199) SENATOR LAUTENBERG: Please provide a list of all aircraft hours by airframe indicating the number of training hours vs. the number of operational hours logged. Please also indicate the number of training flights versus operational flights by airframe. Please provide a list of various operational missions which may be logged against aircraft hours. May a single flight hour be scored against more than one mission?

ADMIRAL KIME: The following table represents the total number of sorties and flight hours for operational and training missions by aircraft type for the first and second quarters of FY1993.

AIRCRAFT	TRNG SORTIES[1]	TRNG HOURS[1]	OPER SORTIES[2]	OPER HOURS[2]
EC-130V	15	45	56	318
HC-130	1179	2380	1883	7920
HH-3F	1016	2249	1430	3226
HH-60J	1808	3849	1445	3033
HH-65A	5787	10045	8560	13265
HU-25	1300	2911	3855	9359
RG-8A	66	111	190	498
VC-11A	41	124	62	97
VC-4A	42	115	29	42
TOTALS	11254	21829	17510	37758

[1] Included in the table are 1,296 training sorties and 2,757 training hours flown by ATC Mobile, our primary source of initial and transition aviation training. HH-60J sorties/hours are high due to ongoing implementation of the aircraft and lack of an HH-60J simulator for transition training and instrument checks.

[2] Operational sorties and hours statistics do not include flights initiated to test or ferry aircraft.

The following is a list of our aviation operational mission categories:

- Marine Inspection Program
- Recreational Boating Safety
- Search and Rescue
- Cadet & Officer Candidate Training
- Short Range Aids to Navigation
- Enforcement of Laws and Treaties
- Marine Environmental Protection
- Cooperation with Other Agencies
- Reserve Training
- Special (directed by Commandant)
- Polar Operations
- Military Operations
- Marine Science Activities
- Public Affairs
- Radionavigation
- Domestic Icebreaking
- Port Safety or Security
- International Affairs
- Bridge Administration
- Miscellaneous

A single flight (resource) hour can be divided between multiple mission (employment) categories. For any given flight, the total amount of flight (resource) hours attributed to employment categories must equal the total number of flight hours expended by the aircraft.

(200) SENATOR LAUTENBERG: What measures of effectiveness are used to determine the value of operational flight hours?

ADMIRAL KIME: Quarterly Abstract of Operations Reports that compile all aircraft flight hours by mission category are used as a level of effort measure of aircraft utilization in support of Coast Guard missions. The Coast Guard is developing programmatic Measures of Effectiveness (MOEs) for the fisheries law enforcement, search and rescue, and marine environmental protection missions. This is a large undertaking which will result in some preliminary MOEs being developed in FY94. Once in place, they should assist in the analysis of the value of all operational resource time (cutters, boats, and aircraft) to mission accomplishment.

(201) SENATOR LAUTENBERG: What number of individual flights or sorties initiated for operational reasons resulted in the intended mission being accomplished?

ADMIRAL KIME: All missions not aborted due to weather or mechanical problems or diverted to another higher priority mission are considered to have been accomplished. The Coast Guard does not maintain summary statistics that track aborted missions. However, this information is available at Coast Guard units, and would require a manual records check. A summary could be provided at a later date if requested. We know from experience that the percentage of aborted flights is very small.

(202) SENATOR LAUTENBERG: Please provide a list of required flight hours per month for the maintenance of qualifications for all officer and enlisted aviation specialities.

ADMIRAL KIME: Regulations require Aircraft Commanders and First Pilots to fly a minimum of 48 hours per semi-annual period. Co-Pilots are required to fly 24 hours per semi-annual period. However, more time may be required to accomplish maneuver specific proficiency requirements. We also recognize the need for duty standing pilots to fly 20-25 flight hours per month to maintain adequate currency and proficiency in the aircraft to prevent flight safety from being compromised. This applies to enlisted aircrew as well. However, enlisted qualifications and requirements can generally be met during pilot training.

(203) SENATOR LAUTENBERG: How many flights were initiated for the sole purpose of maintaining qualifications? Please provide a list broken down by air stations.

ADMIRAL KIME: The following table represents the total number of sorties in the first and second quarters of FY1993 initiated solely to maintain pilot and aircrew proficiency.

AIR STATION	TOTAL SORTIES
Cape Cod	384
Brooklyn	278
Cape May	176
Elizabeth City	319
Savannah	323
Miami	647
Clearwater	830
Borinquen	397
Houston	204
Corpus Christi	268
New Orleans	307
Detroit	178
Traverse City	144
Chicago	160
San Diego	287
San Francisco	229
Los Angeles	228
Humboldt Bay	174
Sacramento	183
Port Angeles	193
Astoria	257
North Bend	308
Barbers Point	282
Kodiak	611
Sitka	203
AR&SC	89
Washington	44
ATC Mobile	539
TOTAL	8,242

This total represents the number of sorties initiated solely for pilot and aircrew proficiency training. It differs from the answer to Question 199. That answer includes the sum total of all training sorties which include pilot training, aircrew training, surface operations proficiency training, pilot upgrade training, and aircrew upgrade training.

(204) SENATOR LAUTENBERG: What percentage of flights initiated for the purpose of fisheries enforcement result in a fisheries violation?

ADMIRAL KIME: Violations which can be directly observed by aircraft include fishing in a closed area, fishing at an unauthorized time (e.g., before a fishery opening or after a fishery closing), boundary line violations, and in some cases, fishing with prohibited types of fishing gear (e.g., large scale pelagic driftnets). About one percent of Coast Guard aircraft surveillance flights initiated for the purpose of fisheries enforcement in fiscal year 1992 resulted in the detection of the above types of violations.

The primary role of Coast Guard aircraft in fisheries law enforcement, however, is to maximize the enforcement capability of patrolling Coast Guard cutters and to provide a deterrent presence on the fishing grounds. Enforcement of many fisheries regulations require either boarding a fishing vessel at-sea or in port to determine if the vessel is in compliance. The Coast Guard does have data to correlate the support provided by aircraft to patrolling cutters with subsequent detections of fisheries violations by these cutters.

(205) SENATOR LAUTENBERG: What percentage of flights initiated for the purpose of identifying a pollution incident result in a pollution violation?

ADMIRAL KIME: Our data bases do not link dedicated pollution patrols with pollution cases and resulting violations. However, we have began a project to develop measures of effectiveness. This project is exploring the relationship between pollution patrols and pollution incidents. We expect the results of this study to assist us in more effectively targeting aviation resources to marine environmental protection missions.

INTERDICTION OF CHINESE MIGRANTS

(206) SENATOR LAUTENBERG: Admiral Kime, please provide additional material supporting your observation that there may be as many as 50 vessels that are being outfitted to illegally transport Chinese migrants into the United States.

ADMIRAL KIME: I have no additional material. The U. S. Immigration and Naturalization Service (INS) is the source of this information.

(207) SENATOR LAUTENBERG: How many vessels smuggling Chinese citizens have been intercepted so far this year? What is the total number of potential immigrants involved? Please compare this to data for the last three years.

ADMIRAL KIME: To date in 1993, the Coast Guard has interdicted eleven vessels carrying 2,518 undocumented Chinese aliens. The figures for the last three years are:

YEAR	VESSELS	ALIENS
1993	11	2,518
1992	6	603
1991	1	20
1990	0	0

(208) SENATOR LAUTENBERG: Is the Coast Guard aware of any human smuggling operations occurring by vessel in the past year that were not interdicted? If so, how many?

ADMIRAL KIME: The Coast Guard is aware of only one instance of a smuggling operation of undocumented Chinese aliens occurring by vessel in the past year which was not interdicted. This was the offload of an estimated 150-200 undocumented Chinese aliens by the M/V FU LUEN HING, in New Bedford, MA on 22 September, 1992.

(209) SENATOR LAUTENBERG: In the recent incidents occurring in 1993, please provide a summary of flag states of the involved vessels.

ADMIRAL KIME: As of 23 June, the Coast Guard has interdicted vessels carrying illegal Chinese migrants from the following flag states:

FLAG STATE	VESSEL NAME
Panama	M/V EASTWOOD
U.S.	F/V ANGEL F/V PELICAN
Honduras	M/V MERMAID M/V PAI SHENG M/V GOLDEN VENTURE F/V CHIN LUANG HSIANG

(210) SENATOR LAUTENBERG: What specific action has the Coast Guard taken in response to the recent dramatic increase in the smuggling of illegal immigrants into the U.S. by sea? Has the Coast Guard been conducting any spot pre-arrival boardings of suspect vessels prior to port entry?

ADMIRAL KIME: All Coast Guard units have been made aware of the increased activity in the smuggling of migrants from People's Republic of China (PRC) and continue to maintain vigilant watches while on patrol. Unfortunately, with a finite number of assets performing multi-mission roles, the Coast Guard is not capable of sealing our maritime border. The Coast Guard does not have a pre-arrival boarding program for foreign flagged vessels. However, when indicated by intelligence or other on-scene information, Coast Guard units board suspicious vessels.

(211) SENATOR LAUTENBERG: What is the Coast Guard's present policy regarding the boarding of Chinese vessels destined for U.S. ports? Are these vessels routinely boarded prior to their arrival in port?

ADMIRAL KIME: Chinese flagged vessels are required to give at least four days prior notice of their arrival at U.S. ports and are boarded upon mooring (the requirement to provide notice varies by flag state). Chinese flagged vessels have not been associated with the illegal trafficking of PRC aliens and are not routinely boarded before they make port.

(212) SENATOR LAUTENBERG: Do the vessels involved in the recent smuggling efforts fit any consistent profile?

ADMIRAL KIME: The initial profile for vessels smuggling undocumented Chinese aliens was Taiwanese fishing vessels. This profile now includes mid-sized general cargo vessels capable of carrying 250-500 persons. Flag states for these vessels include Honduras, Taiwan, Panama, and the United States.

(213) SENATOR LAUTENBERG: What other ports in addition to San Francisco, Jersey City and New York are believed to be likely targets for similar smuggling efforts? Are any new procedures in place in these ports to guard against the increased likelihood of smuggling? If so, what are they?

ADMIRAL KIME: All east and west coast ports are considered to be potential arrival areas for People's Republic of China (PRC) migrants. Hawaii is also a popular port of entry and has been the arrival port for three PRC migrant cases in the last two years. Additionally, it is believed that many PRC migrant vessels make port in Central America and the migrants make their way to the U.S. via land. Using Coast Guard resources to safeguard all U.S. ports against this threat is impractical. The most appropriate solution is to focus intelligence efforts against the PRC migrant threat in order to best deploy Coast Guard assets for at-sea interdiction.

(214) SENATOR LAUTENBERG: What system does the Coast Guard currently have in place to identify the approach of unfriendly or suspect vessels to a U.S. port other than the required notice of arrival?

ADMIRAL KIME: To identify the approach of suspect vessels, the Coast Guard uses a combination of routine multi-mission patrolling by cutters and aircraft, Vessel Traffic Service information at major port locations, intelligence provided by the National Intelligence Community, detection and monitoring from assets of the Department of Defense, and other intelligence information provided by various law enforcement or intelligence agencies.

(215) SENATOR LAUTENBERG: What changes will the Coast Guard make in the deployment of assets to counter the People's Republic of China smuggling activity?

ADMIRAL KIME: The Coast Guard continues to execute all of its current missions and has alerted all Coast Guard units to the growing Peoples Republic of China (PRC) alien threat. Assets on patrol for other mission areas will maintain a watchful eye for suspect PRC smuggling vessels. Since there are no geographic choke points between Hong Kong (the typical PRC departure point) and the U.S., random surface and air patrols would generally be ineffective against the PRC threat. Consequently, the Coast Guard will primarily use intelligence information as the basis for activating PRC migrant interdiction operations. The Coast Guard is working closely with other agencies to obtain detailed intelligence needed to best employ our cutters and aircraft.

(216) SENATOR LAUTENBERG: Has the Coast Guard used its extensive contacts within the port community and merchant fleets to assist in the gathering of information on suspect vessels? Are U.S. merchant officers aware of what type of vessel might fit a suspect profile in which the Coast Guard would be interested? If not, why not?

ADMIRAL KIME: We are pursuing every source of information through our network with the port community, including harbormasters, local maritime patrols and the Immigration and Naturalization Service. U. S. Merchant Mariners are generally aware that the Coast Guard is interested in suspicious or unusual vessels and often report them to us.

(217) SENATOR LAUTENBERG: To what degree has the Office of Operations worked with the Office of Marine Safety, Security and Environmental Protection in the gathering and dissemination of information regarding alien smuggling?

ADMIRAL KIME: The U. S. Coast Guard Office of Law Enforcement and Defense Operations has provided the Office of Marine Safety, Security and Environmental Protection with detailed information covering the history of the problem, and continues to provide updated intelligence information. The Office of Marine Safety, Security and Environmental Protection has assisted the Office of Law Enforcement and Defense Operations by providing valuable information submitted by foreign vessels complying with pollution reporting requirements to enter the U.S., and with information from the Marine Safety Information System database.

REASSESSMENT OF DRUG SUPPLY REDUCTION STRATEGY

(218) SENATOR LAUTENBERG: The Coast Guard participated in Vice President Gore's recent reassessment of our country's supply reduction strategy for the drug war.

What findings have come out of this reassessment that particularly apply to the Coast Guard?

ADMIRAL KIME: The Coast Guard is participating in a review of our international drug control strategy. This review is ongoing. Therefore, a discussion of findings is premature.

(219) SENATOR LAUTENBERG: Might this reassessment result in an increase or decrease in your resource needs for your participation in the drug war? If so, how?

ADMIRAL KIME: A reassessment of Coast Guard resource needs will occur after the review is complete.

(220) SENATOR LAUTENBERG: For the last two years you have been testing a special AEW C-130 aircraft equipped with special detection radar throughout the United States. I understand you have decided not to use the aircraft and you plan to donate the aircraft to another military service. What led to your decision to terminate use of the aircraft?

ADMIRAL KIME: The purpose of the OPEVAL, completed at the end of fiscal year 1992, was to examine the EC-130V's suitability to perform missions beyond the air drug interdiction mission for which it was designed. During the course of the OPEVAL, the EC-130V's capabilities were tested in both the fisheries law enforcement and search and rescue missions. While the EC-130V performed well in support of these two missions, it is better used in counternarcotics detection and monitoring. DOD is the lead agency for counternarcotics detection and monitoring and operates other AEW aircraft in support of this mission.

The EC-130V is the only AEW aircraft in the Coast Guard inventory. In the Department of Transportation and Related Agencies Appropriations Act of 1992, Congress directed the transfer of the only other AEW aircraft operated by the Coast Guard, the E-2C's, to the Department Of Defense. We believe DOD operation of the aircraft will result in the best use of this valuable national asset. Accordingly, the EC-130V has been offered to DOD and we expect to transfer the aircraft in fiscal year 1993.

(221) SENATOR LAUTENBERG: What is the rationale for giving the aircraft to another military service at no charge?

ADMIRAL KIME: We have offered the aircraft to the Department of Defense at no charge. The transfer of assets between the military services is often done without charge and the Coast Guard has long been the beneficary of no-cost DOD support. We feel charging DOD for the EC-130V would be inappropriate.

(222) SENATOR LAUTENBERG: Please provide a table showing the number and amount of drugs seizures made by the Coast Guard, broken down by District and seizing unit type, beginning in FY 1990 up through March 1993.

ADMIRAL KIME: Historical data from fiscal year 1990 through the second quarter of fiscal year 1993, showing the number and amount of drug seizures made by the Coast Guard, broken down by District and seizing unit type, is provided.

[CLERK'S NOTE.--Due to its size, the document entitled, ''USCG Drug Interdictions,'' does not appear in the hearing but is available for review in the subcommittee files.]

(223) SENATOR LAUTENBERG: Admiral, in your verbal remarks, you stated that thus far in 1993, you are at 80% of the level of drug seizures that you had in 1992. Please provide the relevant data for this observation.

ADMIRAL KIME: As of the 13 May 1993 Hearings, the Coast Guard had seized an amount of Cocaine that is nearly 151%, by weight, of that interdicted during the entire fiscal year 1992. An amount of Marijuana was seized during that same period that is nearly 80%, by weight, of that interdicted during fiscal year 1992.

Coast Guard Drug Interdictions

	FY-92	FY-93*	Rate
COCAINE	16,702	25,137	151%
MARIJUANA	50,715	40,527	80%

* Through 13 May 1993

(224) SENATOR LAUTENBERG: Have you seized 80 percent of the volume of the drugs seized in 1992 and/or, have you already achieved 80 percent of the number of seizures that you conducted in 1992?

ADMIRAL KIME: As of the 13 May 1993 Hearings, Coast Guard units had seized a volume of drugs greater than 80% of the total volume seized during all of fiscal year 1992. By weight, the Coast Guard cocaine seizures were nearly 151% of the FY-92 totals. Marijuana seizures were approximately 80% of the FY-92 totals.

(225) SENATOR LAUTENBERG: Please provide historical data over the last ten years for both the number of drug seizures per year and the volume of drugs seized by type of drug.

ADMIRAL KIME: Historical data from fiscal year 1973 through the second quarter of fiscal year 1993, listing the number of drug seizures each year and the volume of drugs seized by type of drug follows:

U. S. Coast Guard Drug Interdictions (Fiscal Year 1973 - Fiscal Year 1993 (13 May 1993))

	FY73 - FY84	FY85	FY86	FY87	FY88	FY89
Coast Guard Seizures						
Marijuana (Lbs)	20,321,655.00	1,952,076.00	1,840,678.00	1,302,311.00	644,811.00	311,966.00
Cocaine (Lbs)	2,092.00	5,890.10	7,494.58	12,950.22	14,591.76	15,863.05
Hashish (Lbs)	112,357.00	0.00	2,099.00	2.00	0.00	0.00
Hashish Oil (Gals)	40.00	0.00	35.00	13.00	52.00	69.00
Thai Sticks (Grams)	39,939.00	0.00	0.00	0.00	0.00	0.00
Dangerous Drugs (Doses)	11,223,581	1	0	0	0	0
Number of Cases	1415	330	265	222	184	183
Coast Guard Assistance To Other Law Enforcement Agencies						
Marijuana (Lbs)	1,841,352.00	329,197.00	233,604.00	88,553.00	110,541.00	16,657.00
Cocaine (Lbs)	2,163.54	79.75	1,004.41	9,503.96	24,364.84	18,929.92
Hashish (Lbs)	7,426.00	0.00	1.00	0.00	86,000.00	40,000.00
Thai Sticks (Grams)	21,751.00	0.00	0.00	0.00	0.00	0.00
Dangerous Drugs (Doses)	0	0	0	0	0	0
Number of Cases	239	51	42	35	92	76

	FY90	FY91	FY92	FY93*
Coast Guard Seizures				
Marijuana (Lbs)	53,263.00	30,668.00	50,715.00	40,527.00
Cocaine (Lbs)	30,181.72	32,658.43	16,702.36	25,137.00
Hashish (Lbs)	12,700.00	141,547.00	0.00	0.00
Hashish Oil (Gals)	0.00	0.00	0.00	0.00
Thai Sticks (Grams)	0.00	0.00	0.00	0.00
Dangerous Drugs (Doses)	0	0	0	0
Number of Cases	121	61	67	24
Coast Guard Assistance To Other Law Enforcement Agencies				
Marijuana (Lbs)	3,815.00	13,355.00	66,134.00	23,785.00
Cocaine (Lbs)	48,549.64	57,676.58	32,249.60	16,706.00
Hashish (Lbs)	0.00	0.00	0.00	0.00
Thai Sticks (Grams)	0.00	0.00	0.00	0.00
Dangerous Drugs (Doses)	0	0	0	0
Number of Cases	86	95	66	19

*Fiscal Year 1993 Data Through 13 May 1993

IMPACT OF HMIO UPON DRUG INTERDICTION OPERATIONS

(226) SENATOR LAUTENBERG: At the peak of your Haitian interdiction operations, you have had as many as 17 Coast Guard cutters and 11 aircraft diverted to the waters surrounding Haiti.

How much have other critical missions suffered as a result of the diversion of these ships and aircraft? Please include quantifiable measures as part of your answer by providing the number, location, and type of patrols, missions, or other operations that were not performed as a result of the diversion of resources.

ADMIRAL KIME: When Operation Able Manner commenced in January 1993, all drug enforcement patrols by major cutters in the Atlantic Area, outside of the Windward Passage, were cancelled. The Yucatan Channel, typically receiving continuous coverage by a major cutter, has not been patrolled by a major cutter since Operation Able Manner began. The Anegada and Mona Passages have received minimal major cutter support. The following table outlines the number of scheduled WHEC/WMEC patrol days lost to Haitian Migration Interdiction Operations (HMIO) in various locations:

Major Cutter Scheduled Patrol Days (CY-93)

Area	January	February	March
Yucatan Channel	21	13	20
GANTSEC	21	8	5
Caribbean Basin	21	56	45
Bahamas	12	0	12

Drug law enforcement patrols by patrol boats (WPB) in coastal waters of Florida and Puerto Rico have also been reduced. For example, The Coast Guard Seventh District averaged 2,318 WPB drug law enforcement patrol hours per month during FY-92. For the period January-February 1993, this average dropped to 335 hours per month.

Fisheries law enforcement has been similarly impacted. Specifically, Northwest Atlantic Fisheries patrols have been limited to only one major cutter (normally two are assigned), periodic patrols by major cutters in the Gulf of Mexico for fisheries closures have been cancelled, and WPB fisheries law enforcement patrol hours in the Seventh District dropped from a monthly average of 445 hours per month in FY-92 to 223 hours per month in CY-93 to date. Weekly scheduled C-130 aircraft flights for fisheries enforcement have been cancelled.

Aircraft patrol hours for drug enforcement have also been decreased. Daily arrival zone flights by HU-25 aircraft for drug law enforcement in the Seventh District have been curtailed (averaged 3 flights per day). C-130 flights in the Southeast Bahamas and the Greater Antilles section (GANTSEC) have been discontinued. Formerly these areas each averaged one flight every three days.

(227)SENATOR LAUTENBERG: If your critical missions suffered relatively little as a result of the diversion of these ships, what does it tell us about the need to operate so many ships?

ADMIRAL KIME: As described in the response to the previous question, our critical missions have suffered substantially as a result of the diversion of these ships. In addition, routine maintenance aboard major cutters and patrol boats had to be rescheduled or deferred to meet the increased operating tempo brought about by the Haitian interdiction operations.

(228) SENATOR LAUTENBURG: What, in your view, is the long-term outlook for returning many of the Coast Guard vessels currently in waters off Haiti to their U.S. ports?

ADMIRAL KIME: The pace of the migrant interdiction mission off Haiti is dynamic and difficult to predict. Current conditions do not indicate an imminent mass migration. While the total number of cutters currently patrolling in the Windward Pass has been reduced since the beginning of Operation Able Manner in January 1993, Haitian migration will continue to be determined by the economics and politics of Haiti and by Haitian perceptions of U.S. migration policy.

(229) SENATOR LAUTENBERG: Please provide a monthly breakdown of the Coast Guard's resources and funds dedicated to date in support of the Haitian Migration Interdiction Operations. Please identify the full and incremental costs of these operations.

ADMIRAL KIME: The "full cost" of the Coast Guard's response to the Haitian Migrant Operations in FY93 through 15 June 1993 is $89.7 million. 1,854 cutter days and 9,420 aircraft hours have been dedicated in support of the operation during this time period.

Table A provides the monthly breakdown of FY93 full costs and resources for these operations to date. "Full costs" include personnel (salary/allowances and other personnel-related standard costs such as medical, permanent change of station, and training), fuel, maintenance, field support/administrative support allocated to operational assets, and depreciation.

The total projected "incremental cost" to the Coast Guard for FY93 is $4.9 million. Incremental costs include only those variable costs the Coast Guard incurred due to increased Haitian Migrant Operations. These costs include supplies and food given to Haitian migrants, temporary duty personnel costs, and fuel/maintenance costs for operating Coast Guard assets above normal program operating hours.

Table B illustrates the breakdown of full costs and resources for FY92 Haitian Migrant Operations. The FY92 full cost of the operation was $62.1 million. The FY92 incremental cost to the Coast Guard was $3.3 million. The increase in full and incremental costs in FY93 relative to FY92 was caused by a significant increase in the Coast Guard's cutter and aircraft assets dedicated to Haitian Migrant Operations.

DETERIORATING FISHING VESSEL ENFORCEMENT

(230) SENATOR LAUTENBERG: On January 18th of this year, shortly after a number of ships left New England to participate in your Haitian migrant interdiction efforts, the Canadian Coast Guard caught 11 U.S. fishing vessels violating the "Hague Line" boundary between Canada and the United States. Do you believe that the diversion of Coast Guard resources to Haiti has resulted in greater lawlessness on the part of the fishing fleet in the Atlantic Area, both U.S. and foreign?

ADMIRAL KIME: In mid-January of 1993, twelve U.S. scallop vessels were cited for fishing in the Canadian Exclusive Economic Zone (EEZ) in violation of the U.S./Canada Enforcement Agreement. Informal reports from fishermen to the Coast Guard and information gathered during Coast Guard enforcement boardings indicate the sudden increase in violations of the Hague Line was a reaction by the fishing fleet to the publicity given to the diversion of major Coast Guard cutters to Haiti.

FISHING VESSEL OPERATIONS

(231) SENATOR LAUTENBERG: What is the status of your legislative proposal for licensing fishing vessel operators, the Marine Safety Act? When was it submitted for consideration by the Congress?

ADMIRAL KIME: On May 19, 1993, the Secretary of Transportation forwarded the Marine Safety Act of 1993 to Congress. Title V of the Marine Safety Act proposes legislation to license all operators of federally documented commercial fishing industry vessels. The Commercial Fishing Industry Vessel Advisory Committee wholeheartedly supports the licensing of commercial fishing industry vessel operators with the emphasis on training.

(232) SENATOR LAUTENBERG: Please provide greater detail on all provisions of the Marine Safety Act, including a section-by-section analysis. Please cite any and all resource ramification of this Act for each of the relevant sections?

ADMIRAL KIME: Section 501 of the Marine Safety Act of 1993 adds a new section 8904a entitled "Uninspected Fishing Industry Vessels" to Chapter 89, SMALL VESSEL MANNING, of Title 46, U.S. Code. This section requires the operator of a documented, uninspected fishing, fish processing, and fish tender vessel to have a Coast Guard license. Under current law, all inspected vessels, regardless of size, must carry the complement of licensed individuals stated in the vessel's certificate of inspection. In general, fishing vessels are not inspected, while fish tender vessels of greater than 500 gross tons are inspected. In addition, under the Officer Competency Convention, 1936, as implemented by 46 U.S.C. 8304, uninspected vessels of at least 200 gross tons operating on the high seas are required to have licensed operators. In effect, Section 501 will bring all documented fishing industry vessels under the requirement to have a licensed operator. Vessels of at least 200 gross tons operating on the high seas, already required to have a licensed operator, would continue to have the current requirements and regulations apply to them. Since this section applies to only documented fishing industry vessels, it does not affect state numbered vessels.

According to projections, there will be approximately 57,000 fishing industry personnel required to obtain Coast Guard licenses as a result of this section. We recognize that this could have the potential to be burdensome to these individuals. Accordingly, we intend to adopt a policy of shared responsibility with private training facilities under which the Coast Guard would accept certificate of completion of training from courses approved by the Coast Guard for an applicant to become eligible for a Coast Guard license. Unlike the present license examination system, the licensee will not be required to take a written Coast Guard exam. The Coast Guard envisions authorizing alternatives that will ensure that successful license applicants demonstrate working knowledge of at least the following: vessel stability, navigation, rules of the road, vessel maintenance, and crew management. As required by Federal law, license candidates will remain subject to provisions related to "age, character, habits of life, experience, professional qualifications, and physical fitness," as well as citizenship, recency of service, and English language ability. On receiving the certificate of completion, the Coast Guard would then require submission of satisfactory evidence of chemical (i.e. drug and alcohol) testing. When an individual is qualified in all respects, the appropriate license will be issued.

The staffing analysis indicated the need for three additional billets/position at Headquarters to review and approve training courses, and to conduct site visits, and 18 additional billets/positions for the Regional Exam Centers to license and maintain the 57,000 license files. In addition to the 21 personnel, estimated cost of implementation, including criminal record checks, is $961,936 per year for the first seven years. After the implementation phase, the recurring program cost is estimated to be $778,336 per year.

We intend to implement a seven year phase-in period under which there would be a two year hiatus until starting the actual five year license period. During the first two years, training institutions will be working to obtain Coast Guard approval of their courses while the Coast Guard will issue Application Acknowledgments to fishermen. The Application Acknowledgments will allow the fishermen to operate vessels for a designated period before receiving their certificates of completion of an approved training course.

(233) SENATOR LAUTENBERG: You stated in your verbal remarks that we are losing 250 fishing vessels a year. Please provide historical data for the last 5 years on the number of fishing vessels lost. Please also provide corresponding data for the number of lives lost due to fishing vessel casualties.

ADMIRAL KIME: That statement was based on the report, "Fishing Vessel Safety" published by the National Research Council (NRC) in 1991. That report covered statistic compiled from 1982 to 1988. The following table shows the Coast Guard statistics for the last five years. Due to a change in computer hardware and software, the data for 1991 is not yet complete. The numbers for 1988 and 1989 are different from previously published statistics. This reflects refinements in software and a manual check of the data that indicated a number of deaths were double counted in the data base. In addition, there are investigation cases from 1992 that are still open. It is the Coast Guard's policy not to publish statistics from open cases. Because the trend does not reflect the NRC report, we are further investigating both sources to compare and verify the information.

FISHING VESSEL LOSSES AND DEATHS

	1988	1989	1990	1991	1992
VESSELS LOST	223	256	185	*	80
DEATHS	65	59	48	*	61

(234) SENATOR LAUTENBERG: In regard to conducting examinations for fishing vessel masters, you stated in your verbal remarks that you would intend to use third parties to administer the examinations. Which third parties do you have in mind for the administration of these examinations?

ADMIRAL KIME: Community colleges, vocational schools, fishing vessel cooperatives, consortiums, unions, and private industry have indicated a strong interest to conduct the proposed training and to examine and certify individuals as meeting the required professional knowledge for a license. For years, the Coast Guard has had requirements for compulsory attendance at specific vocational training courses as a qualification for a merchant mariner's license. Radar, first aid, CPR, flashing light signaling, and firefighting are examples.

(235) SENATOR LAUTENBERG: You stated in your verbal remarks that you would be willing to sit with Congress to discuss the grandfathering of older, more experienced fishing vessel masters who may not be in great need of licensing. What evidence do you have that older fishing vessel masters are more familiar with the stability problems which you stated cause roughly 70 percent of the fishing vessel casualties?

ADMIRAL KIME: At this time, there is insufficient data to conclude that older fishermen are better or safer operators. The Coast Guard does believe that more experience is a positive factor and combined with training will result in improved safety. The Coast Guard is willing to work with the industry and the Congress to determine which eligibility requirements should be grandfathered for existing operators.

Both the Coast Guard and the Commercial Fishing Industry Vessel Advisory Committee think that all fishing vessel operators should receive a minimum amount of training on selected subjects such as, personal survival, stability, and Rules of the Road.

FISHERIES ENFORCEMENT DATA

(236) SENATOR LAUTENBERG: Please update the table on page 151 from last year's hearing record showing the Coast Guard's fisheries enforcement boarding activity by district and/or region.

ADMIRAL KIME: The following table contains updated fisheries enforcement boarding data for each Coast Guard district and area command for calendar years 1990 to 1993:

NUMBER OF FISHERIES ENFORCEMENT BOARDINGS
BY COAST GUARD DISTRICT

CY	1[1]	5	7	8	9	11	13	14	17	20[2]	21[2]	TOTAL
90	2565	429	1242	1615	58	735	1061	31	660	489	109	8994
91	3022	634	922	1446	21	440	663	50	910	602	166	8876
92	2633	1142	1260	1257	2	498	818	72	1524	414	170	9790
93[3]	1099	519	410	415	1	207	380	42	383	171	61	3688

[1] Changes in data CY90 through CY92 reflect updates to the law enforcement database.
[2] Region 20 is Atlantic Area; Region 21 is Pacific Area.
[3] 1993 data are from January 1 to May 31, 1993.

(237) SENATOR LAUTENBERG: Please update the table on page 151 from last year's hearing record showing the number of fisheries violations reports made by the Coast Guard. Include all regions covered by the Coast Guard, including the Pacific, Alaskan and Hawaiian areas. Also show what results were obtained in response to the reports.

ADMIRAL KIME: The following table updates fisheries violation data by region and represents violations reported by the Coast Guard to the National Oceanic and Atmospheric Administration (NOAA). NOAA prosecutes fisheries violations reported by the Coast Guard. The Coast Guard does not have data on the disposition of these cases.

FISHERIES VIOLATIONS DOCUMENTED BY THE USCG

	FISCAL YEARS 1986-1993[1]							
REGION	1986	1987	1988	1989	1990	1991	1992	1993
NORTHEAST (New England & Mid-Atlantic; Districts 1 & 5)	191	192	170	363	238	422	253	71
SOUTHEAST (South Atlantic, Caribbean, & Gulf of Mexico; Districts 7 & 8)	86	158	27	57	351	417	362	188
NORTHWEST (Pacific Coast; Districts 11 & 13)	36	5	76	59	35	4	41	58
SOUTHWEST (Hawaii, Western Pacific; District 14)	6	3	17	1	39	3	15	3
ALASKA (District 17)	171	86	111	83	186	86	183	154
TOTAL	490	444	401	563	849	932	854	474

[1] Fiscal year 1993 data are current through May 31, 1993.

DRIFT NET VIOLATIONS

(238) SENATOR LAUTENBERG: In May of 93 the Coast Guard intercepted three fishing vessels on the high seas for violation of the UN moratorium on driftnetting. What action did the Coast Guard take against these vessels? Were the vessels or their drift nets confiscated? If not, why not? What action has been taken by the vessel flag state? How will we insure that appropriate measures are taken against the vessel by her flag state?

ADMIRAL KIME: United Nations General Assembly Resolution 46/215 calls on all members of the international community to take measures, both individually and collectively, to prevent large scale pelagic driftnet fishing on the high seas. Absent specific agreements between individual states, however, jurisdictional authority over a suspected driftnet vessel is retained by the flag state under international law.

In the incidents involving the Chinese-flagged driftnet vessels YINGYU 601 and YINGYU 602, the Government of China confirmed the vessels' registry and authorized the Coast Guard to board and inspect them. After finding evidence the vessels were equipped to conduct large scale driftnet fishing, the Chinese Government authorized the Coast Guard to order the vessels back to their homeport in China. Chinese authorities have stated they intend to conduct an investigation and take appropriate action upon the vessels' return.

In another incident, the Coast Guard intercepted the driftnet vessel DAYUANYU 206, a stateless vessel formerly registered in the People's Republic of China. The Government of China accepted responsibility for the disposition of the DAYUANYU 206. A U.S. Coast Guard cutter escorted the vessel to Shanghai and turned custody of the vessel and crew over to Chinese authorities for further action. The 18 Chinese crew members were sent to their home province for possible legal action. The vessel, Taiwanese master and 2 Taiwanese crewmen are being held in Shanghai pending further investigation. The State Department has requested the Chinese government, at the minimum, seize the vessel's driftnets. The Chinese government has acknowledged the U.S. Government's request and has indicated they are considering seizing the vessel and its nets and levying monetary penalties on the vessel's master and owners. The Chinese government has also indicated they will provide the U.S. Government with a report of the final disposition of this case.

Because of the lack of cargo storage space and appropriate cargo handling equipment aboard Coast Guard cutters, along with other considerations, it was not practicable for the Coast Guard to remove the large quantity of driftnet found on the three vessels (a combined total of over 30 nautical miles) while at sea. For this reason, the Coast Guard did not seek authority from the Chinese government to confiscate the vessels' nets.

In a fourth incident, a Coast Guard aircraft observed driftnets stowed on the deck of the Honduran-flagged vessel SARN FA NO. 37. While the Government of Honduras confirmed the registry of the SARN FA NO. 37 and authorized the Coast Guard to board, search and detain the vessel if evidence of high seas driftnet activity was found, the vessel departed the area and has not been subsequently located by the Coast Guard.

The U.S. Department of State has conveyed the U.S. Government's concern to the governments of China and Honduras over the issue of the reflagging of high seas driftnet vessels and has urged them to take effective measures to ensure vessels flying their flags comply with the U.N. moratorium. The State Department will follow-up through diplomatic channels to ensure the flag states have taken appropriate enforcement measures in these cases.

(239)SENATOR LAUTENBERG: How many driftnet violations has the Coast Guard identified since implementation of the international agreement? Please list all cases including dates, vessels flag state and disposition of the cases. Please provide a description of action taken by DOS, flag states, and other entities when information has been forwarded by the Coast Guard for appropriate actions. What indications does the Coast Guard have regarding compliance with the U.N. moratorium?

ADMIRAL KIME: The Coast Guard has intercepted three vessels and detected a fourth vessel equipped for large scale high seas pelagic driftnet fishing since U.N. General Assembly Resolution 46/215 went into effect on January 1, 1993. The following table summarizes these incidents:

DATE	VESSEL NAME	FLAG STATE	CASE DISPOSITION
May 10	SARN FA NO. 37	Honduras	Sighted by USCG aircraft. Not boarded because contact with the vessel was lost. Reported to Honduran government via State Department.

May 10	YINGYU 601	People's Republic of China (PRC)	Boarded by USCG, ordered to return to China by authority of Chinese government. USCG case documentation will be delivered to China by State Department via diplomatic channels. Chinese authorities to conduct an investigation upon vessel's return to port.
May 15	YINGYU 602	PRC	Boarded by USCG, ordered to return to China by authority of Chinese government. USCG case documentation will be delivered to China by State Department via diplomatic channels. Chinese authorities to conduct an investigation upon vessel's return to port.
May 23	DAYUANYU 206	Stateless (ex-PRC)	Boarded by USCG, escorted to Shanghai and turned over to Chinese authorities. Chinese government conducting investigation.

The U.S. Department of State has approached the Governments of China, Honduras, Japan, and Russia for continued support of the U.N. resolution and to solicit their cooperation in the disposition of these four cases. The State Department continues to work with China through diplomatic channels to follow-up on the results of their investigations into the YINGYU 601, YINGYU 602, and the DAYUANYU 206 and to finalize a Memorandum of Understanding concerning at-sea boardings of suspected high seas driftnet vessels.

The Governments of China and Honduras cooperated with the U.S. on these cases. They authorized the Coast Guard to board and inspect their vessels, and China took responsibility for the disposition of the DAYUANYU 206. Information developed by the Government of Japan and passed to the Coast Guard led to the initial Coast Guard sighting of the YINGYU 601 and SARN FA NO. 37.

Under procedures developed last year, the Coast Guard continues to share sighting reports from our aircraft surveillance patrols with the Russian Border Guards--particularly those patrols over the western portion of the Northern Pacific Ocean and near the Russian Exclusive Economic Zone. For reasons unknown to us, the Russians did not respond to sighting reports in these cases.

The Coast Guard is monitoring the Pacific Ocean with dedicated aircraft and cutter patrols, aircraft flights and cutter transits of opportunity, and Department of Defense surveillance assets. Given these efforts and the fact that there were nearly 1,000 foreign fishing vessels engaged in high seas driftnet fishing two years ago, the Coast Guard believes compliance to be very high. This is the result of actions taken by flag states to control their nationals, government subsidies to buy back or convert these vessels to other legitimate uses, and the deterrent enforcement presence of the Coast Guard and our counterparts in other countries.

(240) SENATOR LAUTENBERG: What Coast Guard assets have been primarily involved in efforts to enforce the international ban of driftnet operations?

ADMIRAL KIME: The Coast Guard monitors at-sea activity in the Pacific through long-range aircraft patrols and surveillance information supplied by the Department of Defense. The aircraft patrols are conducted by Coast Guard HC-130 aircraft equipped with the APS-137 radar. HAMILTON-class Coast Guard high endurance cutters on dedicated fisheries enforcement patrols with deployed HH-65A helicopters have been used to respond to sighting information.

REGIONAL FISHERIES TRAINING CENTERS

(241) SENATOR LAUTENBERG: Will the regional fish training centers being established incorporate fishing vessel safety training into their curriculum or will they deal solely with fisheries law enforcement issues?

ADMIRAL KIME: The regional fisheries law enforcement training centers are intended to train Coast Guard personnel in the regional-specific aspects of enforcing fisheries management laws and regulations. A central finding of the 1992 Coast Guard Fisheries Enforcement Study was that the current level of fisheries law enforcement training was inadequate to meet mission requirements, given the increasing number and complexity of marine resource regulations, as well as their region-specific nature. Members of the fishing industry will be included as instructors in our training programs. They can help Coast Guard enforcement personnel broaden their understanding of fishing gear, fishing practices, and the impact of Coast Guard enforcement activity on fishing operations.

Secondarily, and consistent with our desire to minimize the impact of enforcement operations on the fishing industry, the regional training centers will include instruction on the at-sea enforcement aspects of fishing vessel safety regulations.

Commercial Fishing Industry Vessel Safety Act training is not necessarily region specific and therefore it will be included in the curriculum at our national law enforcement schools in Yorktown and Petaluma.

AQUATIC NUISANCE SPECIES

(242) SENATOR LAUTENBERG: Please provide the results of the two studies referred to on page 218 of last years record. What action does the Coast Guard anticipate in light of these studies? What will be/are the resource ramifications of your planned actions?

ADMIRAL KIME: The studies mandated by the Coast Guard Authorization Act of 1989 (P.L. 101-225), and the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646) were combined into the National Biological Invasions Shipping Study (NABISS) in June 1992. Phase I of the study (U.S. Waters other than the Great Lakes) is in the final stages of review at Coast Guard Headquarters and the Coast Guard Research and Development Center with an anticipated submission to DOT in August 1993. This report is very comprehensive and biologically oriented. Phase II of the study (waters of and adjacent to the Great Lakes) is underway with an estimated completion date of November 1993. We hope to have the review of this phase completed and submitted to DOT by April 1994. Both phases of the study are Coast Guard funded grants processed through the NOAA Sea Grant Program. With regard to resource ramifications, the Coast Guard has not had an opportunity to fully review the study nor develop an action plan based on its recommendations. A comprehensive review will be conducted upon submission of the completed study and resource impacts will be incorporated in the budget request if necessary.

RESOURCES DEDICATED TO OPERATION DESERT STORM

(243) SENATOR LAUTENBERG: What Coast Guard personnel, equipment, and other resources are currently dedicated in support of OPERATION DESERT STORM? Where are the personnel currently assigned? How much longer are these resources required? Are sufficient Coast Guard resources available to continue this support?

ADMIRAL KIME: Currently there are twenty-two active duty Coast Guard personnel dedicated in support of OPERATION DESERT STORM. This total includes four 4-person Law Enforcement Detachments (LEDETs) and a six-person coordinating staff. Aside from LEDET support gear, (flashlights, weapons, body armor etc.), and some administrative supplies (forms, publications, etc.) for the staff, there is no other equipment or resources dedicated to support OPERATION DESERT STORM.

One LEDET is shoreside in Manama, Bahrain, providing training to boarding parties from U.S. and foreign Navy vessels. The remaining three LEDETs are embarked on Navy ships, conducting boarding operations in the Northern Red Sea to enforce United Nations (UN) sanctions. The coordinating staff is assigned to Commander, U.S. Naval Forces Central Command (NAVCENT) and manages the Maritime Interception Operation (MIO) program.

It is anticipated that Coast Guard personnel will remain in the Persian Gulf as long as NAVCENT requires our support. The duration of the MIO program is not known. The UN will determine if and when the sanctions will be lifted.

Coast Guard resources are adequate to continue this temporary level of support to enforce current UN sanctions.

(244) SENATOR LAUTENBERG: Please provide a monthly breakdown of the Coast Guard's resources and funds dedicated to date in support of OPERATIONS DESERT SHIELD and STORM.

ADMIRAL KIME: A monthly breakdown of funds expended is not available. However, by the end of July 1993 the Coast Guard will have expended a total of $33.9 million in support of Desert Shield and Desert Storm operations ($1.2 million in FY90, $31.6 million in FY91, $0.7 million in FY92 and $.4 million in FY93). The only ongoing FY93 cost is approximately $40,000 per month to support Coast Guard boarding teams deployed to the Persian Gulf (four boarding teams and six staff). In addition to these ongoing FY93 costs, the Coast Guard anticipates expending $51,000 in reserve pay for reservists remaining on active duty for medical reasons. Table A provides a further breakdown of Coast Guard costs for Desert Shield and Desert Storm from FY90 through FY93.

TABLE A: U. S. COAST GUARD DESERT SHIELD/STORM COST SUMMARY

AS OF 31 JULY 1993 ($000'S)

FISCAL YEAR	90	91	92	93	TOTAL	% OF TOTAL
PAY FOR RESERVISTS	$593	$16,655	$146	$51	$17,445	51%
INCONUS LOADOUT OPS SUPERVISION	305	3,581	90		3,976	12%
PORT SECURITY UNITS IN THE GULF	220	9,441	73		9,734	29%
BOARDING TEAM OPS ON THE GULF	90	281	361	390	1,122	3%
INCONUS LOGISTICS FLIGHTS FOR DOD		1,140			1,140	3%
AMMUNITION		547			547	2%
TOTAL	$1,208	$31,645	$670	$441	$33,964	100%

(245) SENATOR LAUTENBERG: Which initiatives regarding the lessons learned from Desert Shield/Storm have been initiated?

ADMIRAL KIME: The Remedial Action Projects (RAP) Program, a part of the Coast Guard Universal Lessons Learned System, tracks progress toward solutions of service-wide deficiencies in plans, policies, procedures, tactics and force structure identified in lessons learned. The following Desert Shield/Storm lessons learned have been added to the RAP Program:

1. INITIATIVE: CG PACAREA Staffing

SOLUTION: The Coast Guard's Office of Readiness and Reserve (G-R) and Office of Marine Safety, Security and Environmental Protection (G-M) have commenced the development of a structure to deal with significant events. This command structure will provide the needed expertise to the designated operational commander. It will be the source of the "G-R/G-M" expertise for those incidents where the Area Commander has direct responsibility, and involves marine safety or Coast Guard Reserve activity.

2. INITIATIVE: Use of Force Policy

SOLUTION: Commandant (G-ODO) convened a working group to evaluate the current policy. The working group determined that only the Coast Guard Use of Force Policy applies. The Department of Defense (DOD) Rules of Engagement (ROE) are not to be used. DOD ROE are only used in instances when Coast Guard forces are under Navy/DOD tactical control. The Maritime Law Enforcement Manual and the Rules of Engagement will be revised to reflect the findings of the working group.

3. INITIATIVE: Shoreside Security in Outload Ports

SOLUTION: Shoreside security is the responsibility of Forces Command and the Military Traffic Management Command. The National Port Readiness Network has resolved the port and shoreside security issues. The Coast Guard's Marine Safety Manual provides for security access control for visitors without proper port security cards.

4. INITIATIVE: Ready Reserve Fleet

SOLUTION: These issues have been discussed in the process of rewriting the USCG/MARAD Memorandum of Understanding (MOU) of 10 July 1989. Most of the problems were related to a lack of communication among MARAD, the Coast Guard, and the Ship Management Companies. The new MOU, signed on 25 March 1992, includes a new section on communication.

5. INITIATIVE: Length of Reserve Deployments and Notification of Extensions

SOLUTION: Information pertinent to reserve deployments should be passed to service personnel first, before it is passed to dependents. Service personnel with no dependents or spouse were unable to pass extension information to employers and creditors. The Coast Guard is considering a change of primary responsibility for the solution to this problem from the Office of Personnel to the Office of Readiness and Reserve.

6. INITIATIVE: Inadequate Physical Conditioning of USCG Reserve Boat Crewmen Selected for Training

SOLUTION: A recommendation for a recurring fitness test for all Coast Guard active and reserve personnel based on a benchmark level of fitness, such as the Navy/DOD standards, was disapproved. The intention is to maintain certification procedures for specialized job tasks, such as boat crewman, aviation survivalman and divers.

7. INITIATIVE: Inadequate A-76 Galley Contracts

SOLUTION: An Article has been written for publication in the July 93 issue of the Procurement Electronic Newsletter (PEN). A letter to advise the commanders of the Maintenance and Logistics Commands of the existence of the problem will be sent prior to the publication of the PEN article. Information concerning this problem has been included in the update to the Personnel and Equipment

Requirements section of the Contingency Preparedness Planning Manual, Vol II.

8. INITIATIVE: U.S. Coast Guard Reserve Organization

SOLUTION: Coast Guard Reserve personnel activated to component commands require time to become an integrated and functioning part of the command. A working group is reviewing a recommendation to reorganize the Reserve along mission specific lines and mobilize entire units as opposed to individual force elements.

9. INITIATIVE: Port Security Unit Management

SOLUTION: The Port Security Unit planning officer will remain in the Ninth Coast Guard District in the near term. The person filling the billet will draft OPLANS and organizational relationships that mesh with naval coastal warfare doctrine.

10. INITIATIVE: DOT E-3498 Exemption/Revision

SOLUTION: The Coast Guard has advised the Research and Special Programs Administration, the Military Traffic Management Command, and Military Sealift Command of its intention to revise DOT E-3498. Preliminary discussions have been held concerning the intent and scope of the proposed changes.

11. INITIATIVE: Inadequacy of Current Explosive Loading Equipment Standards

SOLUTION: A revised Memorandum of Understanding between the Coast Guard and the Maritime Administration (MARAD) increases levels of operation and maintenance requirements for Ready Reserve Fleet (RRF) vessels subject to Coast Guard inspection. Increased liaison between the Coast Guard, MARAD, National Cargo Bureau, American Bureau of Shipping and Military Sealift Command has been established.

12. INITIATIVE: Marking of Security Zones

SOLUTION: The Coast Guard Marine Safety Manual will be changed to address the use of navigational aids to mark restricted areas in which the use of deadly force may be authorized.

(246) SENATOR LAUTENBERG: Was an "After Action" report completed on Desert Shield/Storm? If so, please provide a copy.

ADMIRAL KIME: There was no Coast Guard "After Action" report prepared for Operation Desert Shield/Desert Storm. Coast Guard initiatives regarding the lessons learned from Operation Desert Shield/Desert Storm are addressed in the previous question.

DEFENSE READINESS RESOURCES

(247) SENATOR LAUTENBERG: Please update the table provided in last year's hearing record indicating defense readiness hours versus hours for all other Coast Guard missions.

ADMIRAL KIME: The information follows:

COAST GUARD RESOURCE HOUR STATISTICS
FOR
DEFENSE READINESS VS TOTAL EMPLOYMENT

	1986	1987	1988	1989	1990	1991	1992
CUTTER EMPLOYMENT							
Total Hours	364,685	401,360	371,885	440,966	439,912	409,209	414,480
Defense Readiness Hours	31,882	32,639	36,547	36,228	30,826	33,073	37,780
Percentage of Total	8.74%	8.13%	9.83%	8.23%	7.01%	8.08%	8.15%
AIRCRAFT EMPLOYMENT							
Total Hours	102,857	107,537	106,202	122,347	124,331	125,321	124,146
Defense Readiness Hours	1,088	1,449	1,490	1,948	1,382	1,828	559
Percentage of Total	1.06%	1.35%	1.40%	1.59%	1.11%	1.46%	0.45%
COMPOSITE EMPLOYMENT							
Total Hours	467,542	508,897	478,087	563,313	564,243	534,530	538,626
Defense Readiness Hours	32,970	34,088	38,037	38,236	32,208	34,901	38,339
Percentage of Total	7.05%	6.70%	7.96%	6.79%	5.71%	6.53%	7.12%

(248) SENATOR LAUTENBERG: Please provide data indicating the number of training hours per reservist anticipated in FY 1994. Please differentiate these training hours by indicating total available ADT/IDT hours and those hours allocated to mobilization training, augmentation training and actual augmentation duties.

ADMIRAL KIME: [The information follows:]

AVERAGE TRAINING HOURS PER SELECTED RESERVIST

	Total Hours	Augmentation Training Hrs	Percent Augmentation Training
FY 1994 (est)	274	197	72%
FY 1993 (est)	252	168	67%
FY 1992	232	143	62%

In FY 1994, full program standards of performance are budgeted, which is consistent with recent GAO audits calling for improved training. (In recent years the Coast Guard had budgeted for less than the full program standard.) The total available Active Duty for Training (ADT) hours are 100 hours per year. This is based on 12.5 days ADT per reservist per year; however, the budgeted program standard of performance is 90%; 90 hours of ADT per year are anticipated. The total available Inactive Duty for Training (IDT) hours are 192 hours per year. This is based on 48 IDT drills of 4 hours each; however, the budgeted participation is 46 IDT drills, and 184 hours of IDT per year are anticipated.

All Reserve ADT and IDT serves to train members for possible mobilization. Therefore, all ADT/IDT constitutes "mobilization training." Mobilization is the application of reserve resources on a voluntary or an involuntary call to active duty to meet some or all of the requirements generated by an increase in Coast Guard operational requirements. Mobilization is not a Reserve training activity funded by the Reserve Training Appropriation. Mobilization has been traditionally funded through the Operating Expenses (OE) appropriation, frequently through supplemental appropriations.

"Augmentation training" can be considered a subset of mobilization training. Since Coast Guard defense and non-defense mobilization requirements are extensions of regular Coast Guard missions, one of the most effective means to train for such mobilization is through on-the-job training or side-by-side mentoring which Reservists can receive while working with their active duty counterparts as they perform their regular missions. The projected hours for such training are displayed in the table above.

Reservists do not have "augmentation duties." The purpose of their training is not to replace/displace active duty resources. However, in some instances, once fully trained, Reserves on IDT may provide temporary relief to overtaxed active duty SAR stations by "augmenting" the station with fully qualified boat crews or boat crew members. That type of relief is generally considered to be "augmentation."

NAVGARD BOARD

(249) SENATOR LAUTENBERG: Please list all meetings, agendas, and findings of the NAVGARD Board since January 1992.

ADMIRAL KIME: Since January 1992, the Navy and Coast Guard (NAVGARD) Board met on 23 July 1992, 10 December 1992, and 20 May 1993. The agendas and findings for each meeting are listed below.

23 JULY 1992

Permanent Joint Working Group (PJWG) on Cutter Combat Systems Report. The PJWG gave an update on Navy equipment support projects to the Coast Guard. Modernization programs were progressing well. The Heritage Class patrol boat acquisition project had been cancelled.

Hamilton Class High Endurance Cutter (HEC) Combat Systems Study. An information brief was given on the study approved by the Vice Chief of Naval Operations (VCNO)/Vice Commandant (VCOMDT) in March 1992. The study determined that the requirement for additional installed systems remained valid, except for the Harpoon missile system. HEC Harpoon installations were cancelled; missiles returned to the Navy from those ships with systems already installed. Close in Weapons System (CIWS) installations to be completed on HECs with Navy funding.

Coast Guard Anti-Submarine Warfare (ASW) Capability Requirement Study. The PJWG presented findings/recommendations of a study reviewing the HEC ASW mission. The study recommended that HEC's retain the ASW mission, but not the capability, under the reconstitution planning concept. Coast Guard to disestablish the Sonar Technician (ST) rating. Navy will provide ST/Anti-Submarine Warfare Officer assistance if reconstitution required. Coast Guard/Navy staffs to coordinate disposition of installed equipment and spares. Delete ASW items from PJWG matrix. Study recommendations were approved.

Deployable Littoral Defense (DLD) Study. Concept briefed and approved. Maritime Defense Zone (MARDEZ) commanders to be tasked with producing an execution plan for implementing DLD. Plan to be reviewed at next NAVGARD Board. Execution plan to address costs, required personnel and equipment (and their sources), organizational redundancies, and a label/name which is more descriptive of the mission for outside the continental United States (OCONUS) harbor/port defense.

Three information briefs were presented to the Board - Total Quality Efforts of the Navy and Coast Guard, Strategic Ballistic Missile Submarine Continuity of Operations Program, and Maritime Intercept Force Operations Update.

10 December 1992

PJWG Report on Cutter Combat Systems. The PJWG presented its update on Navy equipment support projects to the Coast Guard. Polar Icebreaker Replacement (PIR) delivery now planned for FY 97 - systems to be installed on the PIR will continue to be tracked for continuity and DOD Program Objective Memorandum (POM) programming purposes.

Deployable Littoral Defense (DLD) Execution Plan. The Board approved a plan presented by Maritime Defense Zone Atlantic (MARDEZLANT) for Harbor Defense Command (HDC), including: create one HDC staff for each zone; test and evaluate the HDC staff during CY-93 in deliberate planning and exercises; involve Naval Doctrine Command in resolution of doctrinal issues of Naval Coastal Warfare. The Board determined that the concept of Naval Coastal Warfare (NCW) Command proposed by Maritime Defense Zone Pacific (MARDEZPAC) merited further study. The Board directed MARDEZ commands to validate exportable NCW requirements with the Fleet Commander in Chiefs (FLTCINCs) and provide a more detailed briefing at the next NAVGARD Board meeting.

Three information briefs were presented to the Board - OPNAV reorganization, Defense Business Operation Fund, and the Coast Guard national security role.

A decision brief was presented to the Board dealing with the Coast Guard National Defense Role. The Board approved a proposal to charter a formal working group to conduct a comprehensive review of possible national defense roles and missions for the Coast Guard. The Board directed the Navy Operations staff, Navy Plans & Policy staff, and the Coast Guard Office of Law Enforcement and Defense Operations to put together a Navy/Coast Guard flag officer steering committee to identify potential mission areas for study and develop a working group charter to be approved by VCNO and VCOMDT. Working group to report at Spring 93 NAVGARD Board.

20 May 1993

PJWG Report on Cutter Combat Systems. The PJWG presented its update on Navy equipment support projects to the Coast Guard.

Two reports were presented on the subject of MARDEZ. First, the Board approved a status report on planning, organizing, and exercising the HDC developed from the DLD Study. Second, the Board approved the joint recommendation of CINCLANTFLT and CINCPACFLT that MARDEZ be manned and funded sufficiently within current manpower and budgetary levels to enable it to train, exercise, and validate the requirements for supporting the NCW mission. The Board tasked MARDEZ to revise/update the MOA to reflect new expeditionary mission.

USN-USCG National Defense Quality/Process Action Team. The Board approved the team's summary progress report and directed that all six subgroups (Maritime Intercept Forces, U.N. Peacekeeping, Deployed/Foreign Port Control, International Training/Security Assistance, Environmental Defense, Polar Region Operations) to continue their studies. Final subgroup reports to be completed for presentation at Fall 93 NAVGARD Board meeting.

Three information briefs were presented to the Board - Naval Doctrine Command, U.S. Navy/Coast Guard/Russia/Eastern Europe Contacts, and V-22 Tilt-rotor Aircraft multimission capabilities.

FIELD/ FLEET/ INTERNATIONAL TRAINING EXERCISES

(250) SENATOR LAUTENBERG: Please provide a list of all Field, Fleet and International Training Exercises conducted in the last year with a brief description of the purpose of the exercise and the number of active duty, reservists, and auxiliarists involved in each. Also include the number of cutters involved by class in each exercise and the respective number of days. Please also indicate in similar format anticipated or scheduled exercises for 1994.

ADMIRAL KIME: Table A lists FY92's Field, Fleet and International Training Exercises in which the Coast Guard participated. Table B lists exercises in which the Coast Guard is tentatively scheduled to participate during FY94. The tables categorize exercises into two types: (1) Field/Fleet Training Exercises (FTX) which concentrate on communications, navigation, formation steaming, antisubmarine warfare, gunnery capabilities and may involve a wide variety of military units; (2) International Training Exercises (INT) is a set of combined exercises with other nations.

TABLE A
FY92

EXERCISE NAME	#DAYS	TYPE	WHEC	WMEC	WPB	WLB	RES	A/D	AUX
OCEAN VENTURE	14	FTX	1	1	3	0	0	28	18
SEMINAR WARGAME	2	FTX	1	4	12	0	0	42	0
RIMPAC	5	FTX	1	1	0	0	14	8	3
FLAME RIVER	4	FTX	0	0	0	0	100	50	4
DESERT RESCUE	5	FTX	0	0	0	0	0	103	0
COASTAL CRESCENT	12	FTX	0	0	2	1	117	334	0
EARTHSHAKE	4	FTX	0	0	0	0	16	25	4
KOOL BREEZE	2	FTX	0	0	0	0	27	11	4
UNITAS	30	INT	0	1	0	0	0	5	0
CRUISE SHIP	1	FTX	0	1	0	0	0	21	0
KING'S GUARD	2	INT	0	0	0	0	0	2	0
TRADEWINDS	90	INT	0	1	1	0	0	101	0

TABLE B
FY94

EXERCISE NAME	#DAYS	TYPE	WHEC	WMEC	WPB	WLB	RES	A/D	AUX
OCEAN VENTURE	14	FTX	1	1	3	0	0	28	18
SECURE PORT	10	FTX	0	0	0	1	93	20	3
QUICK RESPONSE	1	FTX	0	0	0	0	0	5	0
FLAME RIVER	4	FTX	0	0	0	0	100	70	4
UNITAS	40	INT	0	1	0	0	0	5	0
KING'S GUARD	2	INT	0	0	0	0	0	8	0
TRADEWINDS	90	INT	0	1	1	0	0	3	0
CHASTON/SAVANNAH	12	FTX	0	0	0	0	62	12	0
SAN JUAN FTX	12	FTX	0	0	0	0	62	12	0
GULF CONVERGENCE	10	FTX	0	0	0	0	78	27	2
FLEETEX SERIES*		FTX							
GALLANT EAGLE*		FTX							
SOLID SHIELD*		FTX							
UNIFIED SPIRIT*		FTX							
EAGER LIGHT*		FTX							
OCEAN SAFARI*		FTX							
KINDLE LIBERTY*		FTX							
STRONG RESOLVE*		FTX							
SOCEX SERIES*		FTX							
EARTHQUAKE	4	FTX	0	0	0	0	25	12	4
BALTIMORE FF	2	FTX	0	0	0	0	0	2	0
BALTIMORE HAZMAT	2	FTX	0	0	0	0	0	2	0
RESPONSE	2	FTX	0	0	0	0	2	5	0

*DENOTES CLASSIFIED MATERIAL

REDUCTION IN DOD SUPPORT

(251) SENATOR LAUTENBERG: Can the Coast Guard expect to receive reduced DOD expenditures, hardware, and other defense readiness mission support in view of the downsizing of the DOD forces? Please quantify the reduced levels for each category. Please update the table shown on page 190 of last year's hearing record.

ADMIRAL KIME: Yes. The Coast Guard expects to receive reduced DOD expenditures, hardware, and other defense readiness mission support as a result of DOD downsizing. The current support relationship is laid out in a Coast Guard/Navy Memorandum of Understanding which provides broad guidelines to implement the intent of 10 USC 2571 and 14 USC 145 whose provisions include statutory authority for the exchange of personnel, facilities, equipment, supplies or services, with or without reimbursement for the cost thereof, as agreed to by both services.

The primary goal of this support is to maintain interoperability and essential wartime capabilities. When the Coast Guard and Navy jointly determine that a certain capability requirement can be met by "Navy-Type-Navy-Owned" (NTNO) equipment, the Navy procures the equipment, pays for its maintenance, and under certain circumstances, pays for the installation of that equipment. Once the required level of support is determined, funding is provided consistent with available Navy/DOD funds. As DOD budgets are reduced, new procurement programs are being cancelled or limited to only the most essential units. Maintenance funding has historically been below the required level due to lack of funds. As Navy maintenance funding levels go down, we anticipate similar reductions in Navy provided maintenance funds. For example, in FY93, the Coast Guard identified maintenance requirements of $34.3 million and received $25.7 million in funding. The table below lists the maintenance level funding for fiscal years 1991-1994. Deficiencies are met by deferring maintenance.

MAINTENANCE LEVELS ($ millions)

	1991	1992	1993	1994
Coast Guard Requirements*	25.7	27.1	34.3	25.2
Funding	21.3	22.5	25.7	19.1
Shortfall	4.4	4.6	8.6	6.1

* Maintenance of NTNO ordnance, communications, avionics, and combat systems equipment.

Reduced Navy funding also impacts the modernization of NTNO equipment on Coast Guard cutters. Navy upgrades to the Mark 92 Fire Control System installed on Coast Guard 378' and 270' cutters have been cancelled in favor of competing Navy requirements. While this system, which includes an air search radar, remains serviceable without these upgrades, it is not as capable as the same system on a Navy ship. Development of a small caliber weapons system by the Navy which would have been used as a replacement weapons system on Coast Guard 210' Medium Endurance Cutters was cancelled in fiscal year 1993. The need for this or a similar weapons system is being retained as an unfunded requirement.

Approximately $75M of Navy provided equipment and installation funding is required over the next five years to complete ongoing/planned programs for communications and combat systems installations.

It should be noted that much of this equipment which is considered to be solely for defense readiness has significant multi-mission applications as well. The actual weapons themselves have obvious application to the Coast Guard's drug law enforcement mission. Other equipment, such as air search radars, electronic warfare sensors, and communications equipment all provide important capabilities that the Coast Guard uses across a wide range of its missions including the broad spectrum of its law enforcement responsibilities and for search and rescue.

CUTTER DECOMMISSIONING SCHEDULE

(252) SENATOR LAUTENBERG: Please provide an updated schedule for the decommissioning of your 82-foot patrol boats, beginning in FY 1990, citing the vessel by name, the date it will be decommissioned, and all O&M savings associated with each vessel.

ADMIRAL KIME: The following table is provided:

CUTTER	HULL NUMBER	DECOMMISSIONED
PT HOPE	WPB 82302	MAY 91
PT HERRON	WPB 82318	JUN 91
PT VERDE	WPB 82311	JUL 91
PT BARROW	WPB 82348	JUL 91
PT KNOLL	WPB 82367	OCT 91
PT BROWN	WPB 82362	OCT 91
PT CHARLES	WPB 82361	DEC 91
PT JUDITH	WPB 82345	JAN 92
PT ROBERTS	WPB 82332	FEB 92
PT THATCHER	WPB 82314	MAR 92
PT HARRIS	WPB 82376	DEC 92

The average annual Operating and Maintenance (O&M) funds associated with the above listed decommissionings were $138,000 in FY91, $144,000 in FY92 and $147,000 in FY93.

The Coast Guard is conducting a Mission Analysis to support the replacement of the 82-foot Patrol Boat capabilities; the Coastal Patrol Boat (CPB) Project. It would be premature to speculate on future 82-foot WPB decommissionings until that Mission Analysis is complete.

(253)SENATOR LAUTENBERG: Please provide a schedule for the planned decommissioning of any Coast Guard cutters, including WLB/WLM's, in the next five years.

ADMIRAL KIME: The following table is provided:

Cutter Type	FY94	FY95	FY96	FY97	FY98	TOTAL
	Number to be Decommissioned					
WAGB	1[1]	0	0	0	0	1
WHEC	0	0	0	0	0	0
WMEC[2]	0	1[3]	0	0	0	6
WLB	0	0	1[4]	2[4]	2[4]	5[4]
WLM	0	0	1[4]	4[4]	4[4]	9[4]
WPB[5]	0	0	0	0	0	0

Notes: [1] USCGC MACKINAW (WAGB 290).

[2] Does not include 210' WMECs entering MMA.

[3] USCGC CITRUS is currently planned for decommissioning during fiscal year 1995.

[4] Assumes funding and award of options for the WLM/WLB replacement in accordance with current planning.

[5] Assuming the necessary TSARC approvals and funding are obtained, beginning in FY97, Point Class patrol boats will be decommissioned as Coastal patrol boats are delivered.

CITRUS DECOMMISSIONING

(254) SENATOR LAUTENBERG: What is the firm decommissioning date for the CITRUS?

ADMIRAL KIME: A firm decommissioning date for CITRUS has not been established. Current Coast Guard plans are to decommission CITRUS during fiscal year 1995.

210' MMA

(255) SENATOR LAUTENBERG: Please identify the 210-foot WMEC's undergoing major maintenance availability (MMA) and the portion of FY 1994 in which they will be in the MMA program.

ADMIRAL KIME: The following table shows those 210' WMEC cutters undergoing MMA during FY-94 and the portion of FY-94 in which they will be in the MMA program.

CUTTER NAME	HULL #	MMA HULL #	PORTION OF FY-94 IN MMA
STEADFAST	(623)	B-5	October 1993- January 1994
ALERT	(630)	B-6	October 1993- August 1994
DAUNTLESS	(624)	B-7	October 1993- September 1994
VENTUROUS	(625)	B-8	January 1994- September 1994
RESOLUTE	(620)	B-9	August 1994- September 1994

(256) SENATOR LAUTENBERG: In regard to your 210-foot MMA project, please provide a detailed accounting of the $16 million requested in FY-94 for long lead time materials and supply/support services.

ADMIRAL KIME: The following table shows the breakdown for the $16 million requested in FY-94 for long lead time materials and supply/support services:

210-FOOT MMA MATERIAL, SUPPORT AND CONTRACT SERVICES
COST BREAKDOWN

ITEM	COST
CGC DAUNTLESS (B-7) Material[1]	$ 0.2 M
CGC DAUNTLESS (B-7) Support [2]	0.6 M
CGC DAUNTLESS (B-7) Contract[3]	0.4 M
CGC VENTUROUS (B-8) Material	5.4 M
CGC VENTUROUS (B-8) Support	1.2 M
CGC VENTUROUS (B-8) Contract	0.8 M
CGC RESOLUTE (B-9) Material	5.4 M
CGC RESOLUTE (B-9) Support	1.2 M
CGC RESOLUTE (B-9) Contract	0.8 M
TOTAL	$16.0 M

Notes: [1] Material costs cover both long lead time procurements such as steering gear, ship's service generators and air conditioning/refrigeration units plus production material which includes welding, plumbing and electrical material.

[2] Support costs include Supply Center Curtis Bay onload and provisioning services and electronics equipment expenses.

[3] Contract costs include YARD contract costs for various caretaker functions such as security, cleaning and firewatches.

HH-60 JAYHAWK HELICOPTERS

(257) SENATOR LAUTENBERG: What is the range limitation of the HF radios being installed in the HH-60Js? How does this communication range compare with the aircraft's operational range as limited by fuel? How do you plan to resolve the poor transmitting capabilities of the HF radio? Are these HF radios under a warranty that covers this deficiency? If not, why not?

ADMIRAL KIME: Several factors, such as frequency allocations, frequency selection, time of day, solar activity and atmospheric conditions, influence the range of HF communications. Since some of these factors continually change, the range of any HF radio is variable. Under optimum conditions, the HF radio on the HH-60J is capable of communicating at distances in excess of 500 nautical miles. In comparison, the unrefueled radius of action of the HH-60J is 300 nautical miles.

The HH-60J's HF radio, itself, does not possess poor transmitting capabilities. Instead, the transmission problem resulted from the limiting factors inherent with HF communications and the original design of the HH-60J's HF antenna. A modification to the helicopter's HF antenna has improved the aircraft's HF capability. The antenna retrofit of all operational aircraft will be complete by August 1993.

The HF radio type, an ARC-174, was specified in the HH-60J acquisition contract. The radio and antenna performance meets the specifications contained in the Navy administered HH-60 contract. Therefore there is no warranty issue with respect to HF communications equipment.

The Coast Guard arranged for a post-production modification to the HH-60J HF antenna. The total cost for this modification was $774K, funded through the HH-60J AC&I projects (MRR Replacement and OPBAT Replacement). A second follow-on modification was needed. This second modification cost $13K and was funded from OE. The total cost for HF antenna modifications was $788K.

(258) SENATOR LAUTENBERG: How has the limited range of the radio curtailed operations of the aircraft? Has it ever been necessary to send another aircraft as an escort to ensure adequate communications cover? If so, on how many missions was this done and what was the total cost associated with this practice. What airframes were utilized for this purpose? Please compare the number of communications escort flights required to the number of operational missions flown by the HH-60J?

ADMIRAL KIME: When required, the HH-60J is operated to its maximum fuel range. Air stations operating the HH-60J have reported that a retrofit grounded loop antenna has significantly improved aircraft communications. HH60J HF capability is now equal to the HF capability of other Coast Guard aircraft. Presently, this antenna modification is installed on 20 of 32 airframes. Fleet wide installation is scheduled to be completed by August of 1993.

Based on guidance in the "National Search and Rescue Manual" and Coast Guard operational experience, escorts may accompany any of our three helicopter types. Helicopters are given escorts by other aircraft, including other helicopters, to provide assistance in locating a vessel of interest, for navigational assistance when weather or distance offshore limit helicopter navigation aid reception, for rescue assistance in the event of a ditching at sea and/or to provide a communications relay among all participants on the mission.

In the last year, escorts were provided to HH-60Js on 58 different search and rescue missions. Either an HC-130 or an HU-25 flew as the escorting aircraft. None of the escort missions can be solely attributed to HF communications problems with the HH-60J.

In FY92, Coast Guard HH-60Js flew 890 search and rescue missions out of a total 1,878 operational missions.

(259) SENATOR LAUTENBERG: When will the problem be resolved? Do the HH-60Js currently coming out of production have the same problem? Do the Seahawk and Blackhawk helicopters have the same radio deficiencies? Please explain.

ADMIRAL KIME: Subject to the atmospheric constraints inherent with HF communications, the Coast Guard has achieved satisfactory HF performance with its operational HH-60Js.

The HH-60J acquisition contract specified the same HF antenna installation and performance as in the Seahawk. This antenna was later evaluated and determined to be inadequate for Coast Guard operations. After aircraft acceptance by the Coast Guard, a tuned monopole antenna was designed and installed on HH60J airframes. However, operational experience revealed that HF performance, though better than with the original antenna, was still below expectations.

A 1991 evaluation of Coast Guard air to ground communications revealed that the optimal frequency band width for the tuned monopole antenna was higher than the typical frequency band used in Coast Guard operations. A new antenna (grounded loop) was identified as a cost effective replacement for the tuned monopole antenna.

Prototypes of the grounded loop antenna, in conjunction with operator training, showed marked improvement in HH-60J HF communications. Retrofit of the HH-60J fleet is in progress with 20 of 32 airframes complete. Operational units report greatly improved HF communications. Retrofits to operational aircraft are scheduled to be completed by August 1993.

To avoid delays, no modification has been made to the HH-60J acquisition contract. Sikorsky delivers aircraft with the original HF antenna. That antenna is modified to the grounded loop configuration during post production modifications.

The Coast Guard does not maintain specific data on Seahawk or Blackhawk HF communications. We understand the Navy had similar problems with Seahawk HF communications, but may be pursuing the use of satellite communications as a possible solution. Both the Seahawk and the Blackhawk helicopters are operated differently than the Jayhawk. The Jayhawk is more likely to be independently employed further away from home base, making reliable long range communications more vital to mission accomplishment and flight safety.

OPBAT HELICOPTERS

(260) SENATOR LAUTENBERG: Please describe mission use and successes of Coast Guard helicopter resources dedicated to support the Operation Bahamas, Turks, and Caicos (OPBAT) drug law enforcement mission. Please describe the history of the involvement of other military services in the OPBAT mission. Please provide a table comparing funding and flight hours in support of the OPBAT missions by service by fiscal year, from the inception of the program through FY 1993?

ADMIRAL KIME: OPBAT is a multi-agency apprehension operation involving the Drug Enforcement Agency (DEA), Coast Guard, U.S. Army, and Bahamian authorities. The Coast Guard deploys a maximum of five helicopters to the Bahamas (BF). Two aircraft are based at each permanent Coast Guard OPBAT site (Nassau and Great Inagua), and a fifth helicopter is employed in "pulse operations" while staged at various locations to respond to the current threat. Since January

1993, this fifth helicopter has been staged from Great Inagua to support Operation Able Manner, an ongoing Haitian migrant interdiction operation. The OPBAT helicopters at both permanent sites provide a response capability 24 hours per day, 7 days per week.

The Coast Guard began operating HH-3F helicopters out of Freeport, BF in October, 1987. Since then, the trafficking threat has shifted so much that the Bahamas is no longer the destination of choice for narcotrafficking flights, despite the proximity to the U.S. and hundreds of remote islands. The denial of this route is the leading indicator of the effectiveness of this operation, and is the greatest success of this operation.

The history of OPBAT began June 1982 when two DEA helicopters opened an air facility in Nassau, BF. In June, 1983, the U.S. Air Force (USAF) replaced DEA operations in Nassau, BF with two helicopters. In October, 1986, the Army opened the George Town, BF air facility with three UH-60 helicopters. Later that month, a new base was established in Freeport, BF with a DEA helicopter. The month of October, 1987 witnessed the beginning of Coast Guard flight operations when we took over from the DEA in Freeport, BF (DEA moved to Nassau). One year later (October, 1988) the Coast Guard replaced the USAF in Nassau, BF. In August, 1990, the Army's UH-60s pulled out of George Town, BF for deployment to the Persian Gulf; in the interim, the Coast Guard moved HH-3Fs in from Freeport, BF. A temporary OPBAT site was later opened in September, 1990 at Providenciales, Turks and Caicos Island with three Army UH-60s. In June, 1991, the Coast Guard relocated from George Town, BF to Great Inagua, BF, the Army relocated from Providenciales to George Town, BF, and the Coast Guard moved back to Freeport, BF. In September, 1992, the Coast Guard moved from the Freeport, BF fixed site to conduct "pulse operations." Since January, 1993, this "pulse" helicopter has been engaged in Haitian migration operation. Table 1 outlines the current configuration of OPBAT assets.

Table 1

Nassau	George Town	Great Inagua	Pulse
2 CG HH-3F 1 DEA Bell 412 1 DEA Cessna Conquest	3 USA UH-60	2 CG HH-3F	1 CG HH-3F

The Coast Guard does not maintain funding data for other agencies participating in OPBAT. The Table below provides Coast Guard operations and maintenance (O&M) costs and flight hours from FY89 through FY93:

Table 2

Fiscal Year	O&M	Hours Flown[1]
1989	$7,407,000	2,928
1990	$8,052,396	3,203
1991	$8,509,770	3,697
1992	$8,635,270	3,703
1993	$8,911,598[2]	2,044[3]

[1] Includes Op Area & Transit time only
[2] Annual O&M (estimate)
[3] Data as of 31 May 1993

HH-60/HH-3F HELICOPTER PHASE-IN/PHASE-OUT SCHEDULE

(261) SENATOR LAUTENBERG: Please update the table on page 336 of last year's hearing record regarding the phase-in and phase-out of the HH-60J and HH-3F helicopters. Include the OPBAT-dedicated helicopters on that table. Please display relevant cost figures per aircraft which indicate the savings called for in your BUDCAT I line item.

ADMIRAL KIME: The following is the current phase in/out schedule through 1994 for the HH-3F/HH-60J helicopters including OPBAT dedicated helicopters and projected cost figures per aircraft:

	HH-60J PHASE IN		HH-3F PHASE OUT	
UNIT	BEGIN	END	BEGIN	END
A/S ELIZABETH CITY	MAR 91	JUL 91	JUN 91	JUL 91
A/S TRAVERSE CITY	MAY 91	SEP 91	SEP 91	SEP 91
A/S SAN FRANCISCO	SEP 91	JAN 92	JAN 92	JAN 92
A/S CAPE COD	JAN 92	APR 92	MAR 92	APR 92
A/S SITKA	JUN 92	SEP 92	JUL 92	SEP 92
A/S KODIAK	OCT 92	APR 93	MAR 93	APR 93
A/S CLEARWATER	MAY 93	AUG 93	JUN 93	SEP 93
OPBAT	AUG 93	JUN 94	OCT 93	JUN 94
ATC MOBILE	SEP 90	JAN 91	FEB 93	SEP 93

The BUDCAT I line item reflects a reduction of 106 billets associated with the transition from the HH-3F to the HH-60J helicopter. The personnel savings of $2,274K comprises most of the savings in this line item because the Operations and Maintenance (O&M) cost of accelerating the implementation of the HH-60J at Clearwater was almost completely offset by the reduction of 3 HH-3F and 1 HH-60J training allowance aircraft at ATC Mobile in FY94. The most recent implementation schedule shows an O&M savings of $125K above that shown in the BUDCAT I line item. On a per aircraft basis, the annual O&M difference between an HH-3F and an HH-60J is $2,6500K for the non-OPBAT allowances and $2,7700K for the OPBAT allowances (OPBAT aircraft are programmed for 70 more hours per year).

AIREYE IMPROVEMENTS

(262) SENATOR LAUTENBERG: Please discuss the results of the AC&I project for Aireye. Has the equipment been delivered and available for use now? What problems have been alleviated? What problems persist? What does the initial research phase scheduled for 1993 indicate?

ADMIRAL KIME: The AC&I funding provided in FY1993 is being used to replace and upgrade outdated and obsolete portions of our existing sensor equipment. The Coast Guard has contracted for a market survey to evaluate available equipment cost, maintainability and reliability. The final report listing viable alternatives is expected by October 1993. We plan to award a purchase contract for replacement equipment and begin aircraft installations in February 1994. A second phase is planned for FY1995 to complete the project.

TCAS INSTALLATION SCHEDULE

(263) SENATOR LAUTENBERG: Please provide the planned installation schedule for the Traffic Alert and Collision Avoidance System (TCAS) on all Coast Guard aircraft. Please explain the reasons for any changes from last years schedule.

ADMIRAL KIME: The information follows:

	FY94	FY95	FY96	FY97	FY98	TOTAL
HU-25	16	24	0	0	0	40
HC-130	6	7	17	0	0	30
VC-4/VC-11	2	0	0	0	0	2

RG-8 Twins	0	2	0	0	0	2
HH-65	0	0	3	31	61	95
HH-60	0	0	6	37	0	43
TOTAL	24	33	26	68	61	212

HU-25: 41 installations were changed to 40 to match the current aircraft inventory (1 aircraft placed in long term storage).
HC-130: 31 aircraft installations were changed to 30 to match planned aircraft inventory (accounts for EC-130V transfer to DOD).
RG-8: 2 installations in FY96 were changed to two RG-8 Twin installations in FY95 as part of the modification process of those aircraft.
HH-65A: 96 installations were changed to 95 to match current inventory (1 crash damaged aircraft which is not repairable).
HH-60: 47 aircraft installations were changed to 43 to match current planned HH-60 procurements.
The remainder of schedule changes are the result of restructuring the installation schedule to comply with funding levels below those anticipated in the original Acquisition Plan.

HH-60J HELICOPTER GPS EQUIPMENT

(264) SENATOR LAUTENBERG: In the wake of Congressional action last year regarding funding for this project, was a request made to the Navy to pay for it? If so, what was their response? If not, why not?

ADMIRAL KIME: No, a request was not made to the Navy to pay for the HH-60J GPS equipment because the HH-60J helicopter contract provides for a complete avionics package that includes GPS.

(265) SENATOR LAUTENBERG: In last year's record, you stated that the Navy has extended the GPS delivery schedule for CG aircraft to FY 1996. Does this mean that they intend to pay/reimburse the Coast Guard but not until 1996? Is the Navy paying for GPS on any CG aircraft at this time?

ADMIRAL KIME: No, the Navy does not pay/reimburse the Coast Guard for airborne GPS equipment. They procure and deliver the equipment to the Coast Guard as their funding allows. The impact of Navy funding reductions is now projected to stretch airborne GPS equipment deliveries out until FY 2000 vice FY 1996. The Navy is funding prototype GPS installations for each Coast Guard aircraft type and they continue to purchase airborne GPS equipment for Coast Guard aircraft, but on a slower schedule. To date, 83 GPS units have been funded for the Coast Guard. We have received 71 units and installed 42.

(266) SENATOR LAUTENBERG: What is the total cost that the Coast Guard has taken on or will be required to take on because the Navy is not buying navigation equipment for CG aircraft?

ADMIRAL KIME: We do not anticipate significant additional costs because of the slow down. The Navy is continuing to buy airborne GPS equipment for Coast Guard aircraft but at a slower rate than originally planned. While this delivery schedule of airborne GPS equipment will extend the Coast Guard's GPS installation schedule out to FY 2000, it should not have a detrimental budget or operational impact on the Coast Guard.

(267) SENATOR LAUTENBERG: Are there any similar situations for other parts of CG aircraft that were commonly paid for by DOD but are no longer funded by DOD? Are there any similar situations involving vessels or weapons?

ADMIRAL KIME: A similar situation exists in the support of aircraft technical publications. The Air Force has historically provided complex and expensive technical manual for HC-130H aircraft and HH-3F helicopters at no cost to the Coast Guard. The HH-3F is being phased out of the Coast Guard and replaced with the HH-60J.

The Navy has charged the Coast Guard over $2 million per year for HH-60J manuals. The Air Force has stated its intention to remove the data on Coast Guard HC-130H peculiar systems from the C-130 manuals due to staffing and funding constraints. This change would make the Air Force manuals of little value for Coast Guard maintenance, and they may not be available to us at any cost.

Navy support for ordnance installed on our cutters is decreasing. In FY93 we received $12 million from the Navy for ordnance operations and maintenance. The FY94 forecast for Navy funding to the Coast Guard is $8 million. We have also been notified that engineering support for the MK92 fire control system used on the 378' WHEC's and 270' WMEC's, which has always been provided at no cost, will require Coast Guard funding. DoD logistics support in general, whether for depot maintenance, supply support or technical support is becoming more expensive and more difficult to obtain.

(268) SENATOR LAUTENBERG: In regard to your request for GPS installation, Phase IV, your justification states that the Navy plans to fund airborne GPS equipment and integration costs for Coast Guard aircraft and provide integrated support management. Has this been the case throughout the life of this project? If not, what changes occurred, and when?

ADMIRAL KIME: The GPS integration/installation program for Coast Guard aircraft has remained the same since the original request for funding in Phase I. In addition to providing actual airborne GPS equipment, the Navy was to fund integration costs, which include non-recurring engineering and prototyping, and support management costs which include long term maintenance support. The Coast Guard is responsible for equipment installation costs. These installation costs include the actual equipment installation as well as the recurring aircraft specific hardware and software modifications to the individual components.

(269) SENATOR LAUTENBERG: Why is the Coast Guard required to pay for the hardware and software modifications as well as the installations for this equipment? Has this been the case in the installation of prior navigation equipment in Coast Guard aircraft?

ADMIRAL KIME: The basic agreement between the Navy and Coast Guard for Interservice Logistics Support is detailed in OPNAV Instruction 4000.79A of 21 April 1987. Under this instruction, the Navy is responsible for initial outfitting of systems to support Naval Warfare requirements and the Coast Guard is responsible for installation costs of initial issue equipment and associated materials.

For the GPS program, the Navy and Coast Guard agreed that the Navy would fund the Non-Recurring Engineering (NRE) and provide the airborne GPS equipment required to outfit each type of Coast Guard aircraft. The Coast Guard is responsible for all necessary changes, if any, required to have GPS operate with existing Coast Guard avionics systems. Therefore, the Coast Guard funds recurring hardware and/or software changes required for each individual aircraft as well as the actual installation costs.

The GPS program is the first navigation system installed under this basic interservice logistics support agreement between the Navy and Coast Guard. It is expected that all subsequent navigation equipment installations will be similarly executed.

HH-65A NOT MISSION CAPABLE STATS

(270) SENATOR LAUTENBERG: Please provide an update of the table on page 312 of last year's hearing record on "not-mission capable" figures for the HH-65, HH-60, HU-25, and C-130 aircraft. Is the Coast Guard continuing to meet its stated overall HH-65A aircraft availability goal of 71%?

ADMIRAL KIME: Based on data through December 1992, the Coast Guard continues to meet the 71% target availability for the HH-65A in FY93. The updated data requested for the HH-65 helicopter on not mission capable (NMC) percent are listed in the following table:

HH-65A NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989	17%	17%	10%	44%
1990	14%	19%	7%	40%
1991	15%	11%	4%	29%
1992	14%	8%	4%	25%
[1]1993	14%	5%	4%	23%

[1] One quarter data FY93

Notes: NMC - Not Mission Capable
NMCM - Not Mission Capable due Maintenance
NMCS - Not Mission Capable due Supply
NMCB - Not Mission Capable due Both (Maintenance & Supply)

The following table lists "not mission capable" figures for Coast Guard aircraft:

HH-3F NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989	18%	8%	7%	33%
1990	17%	7%	6%	31%
1991	19%	7%	4%	30%
1992	19%	6%	3%	28%
[1]1993	20%	8%	2%	30%

HH-60J NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989				
1990				
1991	10%	5%	5%	19%
1992	13%	10%	6%	29%
[1]1993	11%	7%	3%	20%

HH-130H NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989	15%	9%	4%	28%
1990	13%	9%	6%	28%
1991	12%	6%	4%	21%
1992	13%	6%	4%	23%
[1]1993	17%	5%	6%	28%

EC-130V NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989				
1990				
1991				
1992	11%	6%	9%	26%
[1]1993	11%	0%	0%	11%

HU-25 NMC

FY	NMCM	NMCS	NMCB	NMC TOTAL
1989	17%	14%	5%	36%
1990	6%	13%	7%	26%
1991	18%	8%	7%	33%
1992	18%	10%	7%	35%
[1]1993	17%	8%	10%	35%

[1] One quarter data FY93

LORAN C AND GPS PROGRAM

(271) SENATOR LAUTENBERG: Please provide detailed information on the current location of all overseas and INCONUS Coast Guard LORAN stations, the manning level of each station (including general detail), an explanation for differences in manning levels among stations, current and future expenditures for each LORAN Station and the entire LORAN program, current financial and manning arrangements with foreign host nations, plans and timetable for the termination of the LORAN program, and anticipated expenditures, timetable and manning requirements for the GPS program. How will these requirements for GPS differ from the LORAN program?

ADMIRAL KIME: The attached tables update detailed information previously provided on the current location of all overseas and INCONUS Coast Guard LORAN stations, the manning level of each, costs of operating each station, turnover/closure dates and costs which are known at this time. The station manning levels differ based on the station location, the respective mission, the types of equipment installed, and availability of commercial contractors. Some OUTCONUS stations are manned at higher levels because they must operate an independent electrical power generation plant and manage the larger facilities required to operate a remotely located station. Four INCONUS stations have additional personnel because they are control stations as well as transmitting stations; the added personnel monitor the LORAN-C system 24 hours per day. Most of the remaining stations INCONUS have either 4 or 5 personnel assigned. Future operating expenditures for INCONUS LORAN are projected to be in line with the expenditures indicated on the attached tables, plus COLA.

The Coast Guard operates LORAN-C as the designated Federally provided radionavigation system for the U.S. coastal areas. The 1992 edition of the Federal Radionavigation Plan (FRP) has no published timetable for the termination of the INCONUS LORAN-C program. As discussed in the operating plan, before an existing radionavigation system can be phased out, a minimum 10-15 year period should be provided for transition to the new system. This allows users the necessary time to convert equipment to the replacement system and recoup their investments. FAA has projected a continued need for LORAN-C coverage within the National Airspace System into the 21st century. Therefore, it is anticipated that the LORAN-C system will continue to operate at least through year 2015.

The Coast Guard operates the LORAN-C program in its entirety, whereas the Department of Defense operates the Global Positioning System (GPS) including a 24 satellite constellation. DOD provides the infrastructure to provide the GPS signal service. DOD's costs to operate the GPS system are approximately $400M per year.

The Coast Guard is developing and will operate the Differential GPS (DGPS) Service as an enhancement to GPS. DGPS will provide the greater accuracy needed for vessel navigation in harbors and harbor approach areas of the U.S. and support other federal government position fixing needs in those areas. The acquisition costs for the Coast Guard's DGPS is approximately $15M and the system is scheduled to be completed in 1996. The system will cost an estimated $5M annually to operate and maintain, (including personnel costs for 51 billets).

U.S. COAST GUARD MANAGED LORAN STATIONS
OVERSEAS

LORAN STATION	LOCATION	DIRECT COSTS PERSONNEL/ O&M	BILLETS	CLOSURE (X) OR TURNOVER (O) DATE	CLOSURE OR TURNOVER COST
IWO JIMA	IWO JIMA IS.,JAPAN	1053.4K/ 1052.3K	26	O OCT 93	BEING NEGOTIATED
MARCUS	MARCUS IS., JAPAN	992.2K/ 873.5K	24	O OCT 93	BEING NEGOTIATED
BARRIGADA	GUAM, USA	170.6K/ 245.4K	4	X SEP 93	700.0K
ESTARTIT	ESTARTIT, SPAIN	631.7K/ 510.0K	15	O JAN 95	BEING NEGOTIATED
SELLIA MARINA	SELLIA MARINA, ITALY	931.2K/ 669.6K	23	O JAN 95	BEING NEGOTIATED
KARGABARUN	KARGABURUN, TURKEY	668.1K/ 528.7K	16	O SEP 93	BEING NEGOTIATED
LAMPEDUSA	LAMPEDUSA, ITALY	655.1K/ 719.0K	15	O JAN 95	BEING NEGOTIATED
BO *	BO, NORWAY	0 / 873.0K	0	O JAN 95	BEING NEGOTIATED
EDJE *	FAEROE IS., DENMARK	0 / 1303.0K	0	O JAN 95	BEING NEGOTIATED
SANDUR *	SANDUR, ICELAND	0 / 1334.0K	0	X JAN 95	BEING NEGOTIATED
JAN MAYEN *	JAN MAYEN, NORWAY	0 / 2936.0K	0	O JAN 95	BEING NEGOTIATED
SYLT *	SYLT, GERMANY	0 / 1285.0K	0	O JAN 95	BEING NEGOTIATED
ANGISSOQ	ANGISSOQ, GREENLAND	0 / 2867.0K	0	X JAN 95	BEING NEGOTIATED
KEFLAVIK **	KEFLAVIK, ICELAND	146.0K/ 705.1K	2	X JAN 95	BEING NEGOTIATED
MEDSEA COCO	SELLIA MARINA, ITALY	105.7K/ 4.0K	2	X JAN 95	BEING NEGOTIATED
	GENERAL DETAIL	803.1K/ 0.0K	19		
	TOTAL	6157.1K/15905.6K	146		

* HOST NATION OPERATED - NO CG BILLETS
** HOST NATION AND CG OPERATED

U.S. COAST GUARD MANAGED LORAN STATIONS
CONTINENTAL UNITED STATES

LORAN COSTS STATION	LOCATION	DIRECT COST PERSONNEL/ O&M	BILLETS	CLOSURE DATE	CLOSURE
TOK	TOK, AK	285.1K/ 620.3K	7	NOT CURRENTLY PLANNED	UNKNOW
N					
SHOAL COVE	KETCHIKAN, AK	557.6K/ 327.4K	14	NOT CURRENTLY PLANNED	UNKNOW
N					
KODIAK	KODIAK, AK	944.3K/ 58.1K	24	NOT CURRENTLY PLANNED	UNKNOW
N					
PORT CLARENCE	NOME, AK	899.3K/ 638.4K	23	NOT CURRENTLY PLANNED	UNKNOW
N					
ST. PAUL	ST. PAUL, AK	626.7K/ 483.4K	17	NOT CURRENTLY PLANNED	UNKNOW
N					
ATTU	ANCHORAGE, AK	799.3K/ 388.0K	20	NOT CURRENTLY PLANNED	UNKNOW
N					
GEORGE	GEORGE, WA	238.5K/ 192.5K	6	NOT CURRENTLY PLANNED	UNKNOW
N					
MIDDLETOWN	MIDDLETOWN, CA	790.4K/ 246.6K	21	NOT CURRENTLY PLANNED	UNKNOW
N					
FALLON	FALLON, NV	208.1K/ 238.3K	5	NOT CURRENTLY PLANNED	UNKNOW
N					
HAVRE	HAVRE, MT	212.6K/ 189.7K	5	NOT CURRENTLY PLANNED	UNKNOW
N					
SEARCHLIGHT	SEARCHLIGHT, NV	208.1K/ 72.2K	5	NOT CURRENTLY PLANNED	UNKNOW
N					
MALONE	MALONE, FL	766.6K/ 178.9K	20	NOT CURRENTLY PLANNED	UNKNOW
N					
GRANGEVILLE	DENHAM SPRINGS, LA	174.4K/ 122.2K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
RAYMONDVILLE	RAYMONDVILLE, TX	169.1K/ 35.5K	4	NOT CURRENTLY PLANNED	UNKNOW

N					
BOISE CITY	BOISE CITY, OK	174.4K/ 148.4K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
LAS CRUCES	LAS CRUCES, NM	212.6K/ 98.0K	5	NOT CURRENTLY PLANNED	UNKNOW
N					
GILLETTE	GILLETTE, WY	174.4K/ 151.5K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
JUPITER	HOBE SOUND, FL	169.1K/ 132.2K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
SENECA	ROMULUS, NY	771.1K/ 129.0K	20	NOT CURRENTLY PLANNED	UNKNOW
N					
CARIBOU	CARIBOU, ME	174.4K/ 163.7K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
NANTUCKET	SIASCONSET, MA	174.4K/ 770.7K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
CAROLINA BEACH	CAROLINA BEACH, NC	174.4K/ 132.8K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
BAUDETTE	BAUDETTE, MN	169.1K/ 118.9K	4	NOT CURRENTLY PLANNED	UNKNOW
N					
	General Detail	1487.2K/ 0.0K	35		
	Total	10764.0K/5848.6K	268		

LORAN STATION KARGABURUN, TURKEY

(272) SENATOR LAUTENBERG: When did Loran Station Kargaburun become disabled? Were any repairs conducted? When were/will personnel report out? What were FY93 savings? What savings are anticipated in FY94?

ADMIRAL KIME: On 25 February 1993, the 625 foot antenna tower at Loran Station Kargaburun, Turkey collapsed during an abnormally severe ice/snow storm. Fortunately, there was no loss of life or injuries. There was minor, non-structural damage to a corner of the transmitter building, which has since been repaired. None of the equipment inside the building was damaged. The collapsed tower has been removed, and the tower anchor system and tower base have been inspected; no damage was observed. All other equipment at the station is fully functional. Immediately after the tower collapse, the Coast Guard took steps to determine if DOD had a continuing need for the Kargaburun Loran-C signal. DOD replied that they had no continuing need for this specific station. Based on this reply, the Coast Guard is planning to disestablish the station and turn it over to the Government of Turkey on 01 September 1993. No efforts to replace the tower will be conducted by the Coast Guard. All personnel currently assigned to the station will be removed by 01 September 1993. We do not anticipate any FY 1993 savings with this closure. Although the Operations and Maintenance (O&M) savings for the single remaining month of FY 1993 are approximately $48,000, the anticipated permanent change of station costs associated with the station closure exceed this savings. FY 1994 savings in O&M and personnel costs for the Kargaburun station are $1.239 million in lieu of the $2.0 million estimate provided earlier to the House Committee on Appropriations.

LORAN STATION CLOSURE/DOWNSIZING

(273) SENATOR LAUTENBERG: What other units, if any, have been closed or downsized in 1993 or will be closed later in 1993 or 1994 that were not anticipated or displayed in the budget?

ADMIRAL KIME: Besides LORAN Station Kargaburun, three Far East Section Loran Stations included in the FY-94 budget have closed or will close earlier than indicated. LORAN Stations Hokkaido and Gesashi in Japan were both disestablished effective July 1, 1993. The transmitter at LORAN Station Barrigada in Guam was turned off July 1, but the four assigned personnel will remain to dismantle the station for turnover to Guam; anticipate full closure of the station by September 1, 1993. No other Coast Guard units, LORAN or otherwise, have been closed, downsized, or are planned to close later in 1993 or 1994 that were not identified in the FY94 requests.

PERSONNEL

FILLING POSITIONS PROVIDED BY CONGRESS

(274) SENATOR LAUTENBERG: Did the Office of Management and Budget or the Office of the Secretary of Transportation impose any limitations on the Coast Guard in filling vacant positions or in filling new positions provided by the Congress for fiscal years 1992 or 1993.

ADMIRAL KIME: Neither the Office of Management and Budget nor the Department of Transportation have imposed any limitations on the Coast Guard in filling vacant positions, however, an Executive Order mandated a reduction in the use of our FTE through attrition. Because the Coast Guard does not have an early out program, we are attempting to meet the civilian personnel reductions through attrition and by not filling vacant positions. Some vacant positions that were funded by Congress in fiscal years 1992 and 1993 may not be filled because of the need to meet the mandated personnel reductions.

(275) SENATOR LAUTENBERG: Is the Coast Guard authorized to fill all positions provided for FY 1993? If not, why not?

ADMIRAL KIME: The Coast Guard is authorized to fill all positions within the funding appropriated for Full-Time Equivalent (FTE) in FY 1993.

LOSS OF MARINE SAFETY AND ENVIRONMENTAL PROTECTION BILLETS

(276) SENATOR LAUTENBERG: Please provide a year by year accounting of total employment in the marine safety and environmental protection program from 1980 to 1994. Please explain significant deltas for the last three years.

ADMIRAL KIME: The following tables identify the number of billets allocated to units and staffs engaged in marine safety and environmental protection programs from 1980 to 1994. Table I identifies the billet totals. Table II identifies the resource intiatives during fiscal years 1991-1993, and those anticipated during FY 1994.

Table I

YEAR	BILLETS	CHANGE
1980	3521	---
1981	3022	-499
1982	2986	-36
1983	2815	-171
1984	2835	+20
1985	2812	-23
1986	2663	-149
1987	2648	-15
1988	2648	0
1989	2669	+21
1990	2669	0
1991	3068	+399
1992	3266	+198
1993	3323	+57
1994	3357	+34
NET CHANGE:		-164

Table II

Initiative	(FY)	OFF	CWO	ENL	CIV	TOTAL
Oil Pollution Act	91	105	6	81	94	286
MARPOL	91	27	7	50	1	85
Safety & Occupational Health	91	6	0	23	0	29
Fishing Vessel Safety	91	11	0	0	6	17
Fishing Vessel Safety	92	5	3	14	23	45
Vsl/Facility Response Plans	92	4	0	35	1	40
Marine Inspectors	92	20	11	4	1	36
Supplemental Inspectors	92	15	10	2	0	27
Casualty-Poll. Investigators	92	15	0	0	1	16
Drug & Alcohol Enforcement	92	17	1	0	1	19
RBS Factory Inspections	92	0	1	6	0	7
Marine Inspectors	93	13	14	0	0	27
Non-Indigenous Species	93	0	0	8	0	8
Pre-positioned Equipment	93	0	0	1	0	1
International Training Teams	93	4	1	4	0	9
Sub-totals		242	54	228	128	652
Spill Standardization Teams	94	12	4	0	6	22
Fishing Vessel Licensing	94	0	0	0	3	3
Passenger Vessel Safety	94	4	0	0	6	10
Response Equip Maintenance	94	0	0	0	1	1
Sub-totals		16	4	0	16	36
TOTALS		258	58	228	144	688

Over the past three years, marine safety programs have received 652 new billets and we anticipate 36 more in FY 1994 due to new resource initiatives, for a total of 688 full-time positions.

The growth in resources from FY 1991 through 1993 for the marine safety programs was in response to several major initiatives, particularly the Oil Pollution Act of 1990; increased MARPOL enforcement efforts; voluntary Fishing Vessel Safety inspections; and expanded casualty, pollution investigation, and drug and alcohol investigation programs.

MARPOL ENFORCEMENT BILLETS

(277) SENATOR LAUTENBERG: In 1990 I provided funding for 100 new full time personnel to increase your coastal pollution prevention and investigation efforts under MARPOL. That was twice as many billets as were requested in your budget. However, it was not until January 1992 that your office sent out an explicit message reminding your Captains of the Port that these billets should be used for MARPOL enforcement activities. If the GAO were to visit all of your marine safety offices, would it be difficult for them to determine who the MARPOL coordinators are in each marine safety office?

ADMIRAL KIME: No. Each unit has a specifically identified MARPOL coordinator. Most of these are commissioned officers.

(278) SENATOR LAUTENBERG: Did these billets simply get absorbed within your Marine Safety Offices and directed to whatever priorities were determined by the Captain of the Port, or do you believe each Captain of the Port fully understands their obligations to pursue MARPOL cases.

ADMIRAL KIME: All of the Captains of the Port clearly understand their obligations to pursue MARPOL enforcement and compliance. Their understanding has been reinforced by messages, a new chapter to the Marine Safety Manual, briefings at conferences sponsored by Headquarters for all commanding officers of Marine Safety Offices, and personal visits to field units by Headquarters program managers. All identified MARPOL billets assigned to Marine Safety offices have been filled. These billets, provided the dedicated personnel resources to focus on the increase in MARPOL emphasis. Every MSO with MARPOL responsibilities has an active MARPOL billet who can coordinate other COTP assets for MARPOL enforcement. We believe this is a very effective use of field personnel and is resulting in increased MARPOL compliance and enforcement.

(279) SENATOR LAUTENBERG: In 1990 I provided funding for 100 new full-time personnel to increase your coastal pollution prevention and investigation efforts under MARPOL. That was twice as many billets as were requested in your budget. However, it was not until January 1992 that your office sent out an explicit message reminding your Captains of the Port that these billets should be used for MARPOL enforcement activities.

Do you believe the current number of cases, deficiencies, violations, and civil penalties coming out of your Marine Safety Offices indicates that they all have an equally strong commitment to MARPOL enforcement that matches your own commitment?

ADMIRAL KIME: I believe that the latest MARPOL enforcement data coming out of our Marine Safety Offices (MSO's) shows a great improvement in our coastal pollution prevention and investigation efforts since 1990. That improvement is a direct result of the commitment of our people to advance the goals of MARPOL. While our data shows that our MARPOL enforcement results vary from district to district and unit to unit, our MARPOL V caseload is growing in seven of our nine coastal districts, and is holding strong in one of the other two. We believe we still have a long way to go, but we are making good progress, and we are determined to improve further.

From 1990 to 1992, the number of MARPOL V investigation cases by our MSO's increased by nearly 100 percent, to 179 cases. Our momentum is increasing, with 31 percent growth in MARPOL V cases in 1991, and 48 percent growth in 1992. In the period March 1992 through February 1993, our Marine Safety Offices registered 288 MARPOL cases. This is in addition to several hundred MARPOL V cases generated by our Coast Guard Groups, which were trained in MARPOL enforcement by our Marine Safety Offices.

The distribution of the MARPOL caseload across our nine coastal districts has also improved dramatically. In 1991, the vast majority of our MARPOL V cases (over 80 percent) were concentrated at nine units in five districts, and a total of 20 units generated cases. In 1992, the same portion was spread across 19 units in all nine coastal districts, and 30 of our 40 coastal Marine Safety Offices registered at least one MARPOL investigation.

From 1991 to 1992 our number of civil penalty assessments for MARPOL V quadrupled from 12 to 49, and our total civil penalties assessed grew enormously, from $39,400 to $336,050; that's a growth of over 750 percent.

I believe it is important to point out that MARPOL enforcement is much more difficult than our typical pollution prevention and investigation activity under the Clean Water Act. We have several thousand pollution investigations each year under the Clean Water Act. All of these cases are based on eyewitness reports of oil spills in and around U.S. waters. These waters are subject to heavy surveillance by Coast Guard harbor patrol teams, vessels, and aircraft, as well as thousands of other public and private vessels and aircraft. In contrast, there are very few eyewitness reports of MARPOL discharges at sea, because most of these violations occur in remote areas of the open ocean which do not receive nearly as much Coast Guard surveillance as coastal areas. The vast majority of MARPOL violation cases are based on circumstantial evidence developed by Coast Guard and Animal and Plant Health Inspection Service (APHIS) boarding teams during routine vessel boardings. These investigations are time consuming, and often produce little in the way of actionable evidence, especially in MARPOL V investigations, where the lack of shipboard refuse record requirements impedes our investigations.

We are commited to our MARPOL mission and appreciate your help in strengthening our ability to enforce MARPOL requirements.

STATUS OF OPA 90 BILLETS

(280) SENATOR LAUTENBERG: Please provide an update of the status of OPA 90 billets. Have all billets (officer, enlisted, civilian) now been filled? Last year the military billets were largely filled, however only 44% percent of the civilian positions were filled. Please provide a list of all billets and indicate the grade or level of the billet, if and when it was filled, and the grade/rank/level of the person currently occupying the billet. How many, and which billets are filled at levels below those designated?

ADMIRAL KIME: 98% of the military and civilian OPA 90 positions are filled or have personnel ordered in. The following tables show the military billets and civilian positions issued by the Coast Guard to conduct and enforce activities ascribed to the Oil Pollution Act of 1990. The information is based on personnel assignment data as of June 23, 1993. Table I lists the military billets. Table II lists the civilian positions. Vacant billets previously filled are temporarily vacant during the summer transfer season. A review of the military billets shows that 45 billets were filled by an individual below the established billet grade, and 9 billets were filled by an individual above the established billet grade.

TABLE I

MILITARY BILLETS (ALPHABETICALLY SORTED)

BILLET	LOCATION	FILLED BY	RPT DATE
BM1	CG ATLANTIC STRIKE TEAM	BM1	3QTR FY93
BM1	CG ATLANTIC STRIKE TEAM	BM1	19-SEP-91

BM1	CG ATLANTIC STRIKE TEAM	BM1	22-MAY-92
BM1	MSO SAN JUAN	BM2	01-NOV-91
BM2	CG ATLANTIC STRIKE TEAM	BM1	06-JAN-92
BM2	CG ATLANTIC STRIKE TEAM	BM2	06-APR-92
BM2	CG GP LONG ISLAND SOUND	BM2	11-JUL-91
BM2	MSO PORTLAND	BM2	07-AUG-91
BMC	CG ATLANTIC STRIKE TEAM	BMC	22-JUL-91
BMC	NATL POLLUTION FUNDS CENTER	BMC	03-OCT-91
BMC	CG PACIFIC STRIKE TEAM	BMC	15-JUL-90
BOSN	CG ATLANTIC STRIKE TEAM	BOSN	15-JUL-91
BOSN	NATL POLLUTION FUNDS CENTER	BOSN	03-OCT-91
BOSN	NATL POLLUTION FUNDS CENTER	BOSN	03-OCT-91
BOSN	NATL POLLUTION FUNDS CENTER	BOSN	06-NOV-91
CAPT	NATL POLLUTION FUNDS CENTER	CAPT	03-OCT-91
CAPT	NATL POLLUTION FUNDS CENTER	CAPT	03-OCT-91
CAPT	NATL POLLUTION FUNDS CENTER	CAPT	25-MAY-92
CAPT	NATL POLLUTION FUNDS CENTER	CAPT	30-APR-92
CAPT	NATL POLLUTION FUNDS CENTER	CAPT	02-JUL-92
CAPT	CG HEADQUARTERS	CAPT	14-MAY-92
CAPT	CG HEADQUARTERS ABS LIAISON	CAPT	11-JUL-92
CAPT	NATL STRIKE FORCE CENTER	CAPT	12-JUL-91
CDR	CG ATLANTIC STRIKE TEAM	CDR	12-JUL-91
CDR	NATL POLLUTION FUNDS CENTER	CDR	03-OCT-91
CDR	NATL POLLUTION FUNDS CENTER	LCDR	03-OCT-91
CDR	NATL POLLUTION FUNDS CENTER	LCDR	25-FEB-91
CDR	NATL POLLUTION FUNDS CENTER	CDR	04-AUG-92
CDR	NATL POLLUTION FUNDS CENTER	CDR	15-APR-91
CDR	CG HEADQUARTERS	CDR	3QTR FY93
CDR	CG HEADQUARTERS	CDR	02-OCT-92
CDR	CG HEADQUARTERS	CDR	13-SEP-91
CDR	CG HEADQUARTERS	CDR	02-JUL-92
CDR	CG HEADQUARTERS	LCDR	3QTR FY93
CDR	CG HEADQUARTERS	CDR	26-JUL-91
CDR	CG HEADQUARTERS	CDR	08-JAN-91
CDR	NATL STRIKE FORCE CENTER	CDR	19-JUL-91
DC1	CG ATLANTIC STRIKE TEAM	DC1	31-OCT-91
DC1	CG ATLANTIC STRIKE TEAM	DC2	01-FEB-93
DC1	MSO PORT ARTHUR	DC1	28-JUN-92
DC2	CG ATLANTIC STRIKE TEAM	DC2	26-AUG-91
DC2	CG ATLANTIC STRIKE TEAM	DC2	07-JUL-92
DC2	MSO PHILADELPHIA	DC2	02-MAR-92
DCC	CG ATLANTIC STRIKE TEAM	DCC	30-AUG-91
DCC	CG PACIFIC STRIKE TEAM	DCC	25-OCT-91
EM1	CG ATLANTIC STRIKE TEAM	EM1	15-JUL-91
EM1	CG PACIFIC STRIKE TEAM	EM1	04-NOV-91
ENG	CG ATLANTIC STRIKE TEAM	ENG	23-AUG-91
ET1	NATL STRIKE FORCE CENTER	ET1	09-OCT-92
F&S	CG ATLANTIC STRIKE TEAM	F&S	12-AUG-91
F&S	NATL STRIKE FORCE CENTER	F&S	14-AUG-91
F&S	CG HEADQUARTERS	PSS	01-APR-91
LCDR	11TH COAST GUARD DIST	LCDR	21-AUG-92
LCDR	13TH COAST GUARD DIST	LCDR	31-JUL-91
LCDR	14TH COAST GUARD DIST	LCDR	07-AUG-92
LCDR	17TH COAST GUARD DIST	LT	28-SEP-92
LCDR	1ST COAST GUARD DIST -	LCDR	05-AUG-91
LCDR	2ND COAST GUARD DIST -	LCDR	06-NOV-92
LCDR	2ND COAST GUARD DIST -	LCDR	24-JUL-91
LCDR	5TH COAST GUARD DIST -	CDR	30-AUG-91
LCDR	7TH COAST GUARD DIST -	LT	31-AUG-91
LCDR	8TH COAST GUARD DIST -	LT	15-JUL-91
LCDR	9TH COAST GUARD DIST -	LCDR	25-JUL-91
LCDR	CG GROUP NEW YORK	LT	3QTR FY93
LCDR	CG ATLANTIC STRIKE TEAM	LCDR	01-JUL-91
LCDR	MSO HOUSTON	LT	3QTR FY93
LCDR	MSO MORGAN CITY	LT	3QTR FY93
LCDR	MSO NEW ORLEANS	LT	20-JUL-91
LCDR	MSO PHILADELPHIA	LT	21-AUG-92

LCDR	MSO PORT ARTHUR	LTJG	07-DEC-89
LCDR	MSO PROVIDENCE	LCDR	09-APR-93
LCDR	NATL POLLUTION FUNDS CENTER	LT	16-JUL-92
LCDR	NATL POLLUTION FUNDS CENTER	LT	3QTR FY93
LCDR	NATL POLLUTION FUNDS CENTER	LCDR	17-JUL-92
LCDR	NATL POLLUTION FUNDS CENTER	LCDR	03-OCT-91
LCDR	CG HEADQUARTERS	LT	3QTR FY93
LCDR	CG HEADQUARTERS	CDR	22-MAY-91
LCDR	CG HEADQUARTERS	LT	3QTR FY93
LCDR	CG HEADQUARTERS	LCDR	19-JUL-91
LCDR	CG HEADQUARTERS	LCDR	06-SEP-91
LCDR	CG HEADQUARTERS	LTJG	19-JUL-91
LCDR	CG HEADQUARTERS	ENS	29-FEB-92
LCDR	CG HEADQUARTERS	LCDR	01-JUL-91
LCDR	CG HEADQUARTERS	LCDR	01-JUL-91
LCDR	CG HEADQUARTERS	LT	01-JUL-91
LCDR	NATL STRIKE FORCE CENTER	LCDR	16-OCT-92
LCDR	NATL STRIKE FORCE CENTER	LCDR	15-JUL-92
LT	CG ATLANTIC STRIKE TEAM	LT	22-JUL-91
LT	MSO ANCHORAGE	LT	04-JUL-91
LT	MSO BALTIMORE	LTJG	30-JUL-91
LT	MSO BOSTON	ENS	3QTR FY93
LT	MSO CHARLESTON	LTJG	11-OCT-90
LT	MSO CORPUS CHRISTI	LT	05-JUL-90
LT	MSO DETROIT	LTJG	22-SEP-91
LT	MSO GALVESTON	LT	31-JUL-91
LT	MSO HAMPTON ROADS	LTJG	01-OCT-92
LT	MSO HONOLULU	LT	12-AUG-92
LT	MSO MIAMI	LT	01-JUL-91
LT	MSO JACKSONVILLE	LT	06-JUL-90
LT	MSO JUNEAU	LTJG	13-OCT-91
LT	MSO LOS ANGELES/LB	LT	22-JUL-91
LT	MSO MOBILE	LT	30-JUN-89
LT	MSO PORTLAND	LTJG	12-SEP-91
LT	MSO PORTLAND	ENS	24-JUL-92
LT	MSO PUGET SOUND	LTJG	20-JUL-92
LT	MSO SAN DIEGO	LTJG	15-JUN-91
LT	MSO SAN FRANCISCO	LT	09-AUG-91
LT	MSO SAN JUAN	LT	02-JUL-90
LT	MSO SAVANNAH	LT	10-JUL-92
LT	MSO TAMPA	ENS	12-AUG-92
LT	MSO VALDEZ	ENS	23-MAR-92
LT	MSO WILMINGTON	LTJG	08-AUG-91
LT	NATL POLLUTION FUNDS CENTER	LT	02-JAN-92
LT	NATL POLLUTION FUNDS CENTER	GM-15	09-DEC-91
LT	NATL POLLUTION FUNDS CENTER	GM-13	30-JUN-91
LT	NATL POLLUTION FUNDS CENTER	GM-13	08-MAR-92
LT	CG HEADQUARTERS	LT	3QTR FY93
LT	CG HEADQUARTERS	LTJG	3QTR FY93
LT	CG HEADQUARTERS	LT	14-JUN-91
LT	CG HEADQUARTERS	LT	03-MAY-91
LT	CG HEADQUARTERS	LT	26-MAR-91
LT	CG HEADQUARTERS	LT	30-JUN-93
LT	NATL STRIKE FORCE CENTER	LTJG	05-AUG-91
LT	NATL STRIKE FORCE CENTER	LT	15-JUN-92
LT	NATL STRIKE FORCE CENTER	ENS	04-AUG-92
LT	NATL STRIKE FORCE CENTER	LT	31-JUL-92
LT	NATL STRIKE FORCE CENTER	ENS	12-AUG-92
LTJG	CG ATLANTIC STRIKE TEAM	ENS	14-DEC-92
LTJG	NATL POLLUTION FUNDS CENTER	ENS	09-OCT-92
LTJG	CG HEADQUARTERS	ENS	03-JAN-92
LTJG	NATL STRIKE FORCE CENTER	LTJG	30-JUL-91
LTJG	NATL STRIKE FORCE CENTER	LTJG	09-AUG-91
MK1	CG ATLANTIC STRIKE TEAM	MK1	05-AUG-91
MK1	CG ATLANTIC STRIKE TEAM	MK2	13-AUG-91
MK1	CG ATLANTIC STRIKE TEAM	MK1	19-SEP-91
MK1	MSO HONOLULU	MK1	3QTR FY93
MK1	MSO NEW ORLEANS	MK1	20-DEC-91
MK2	CG ATLANTIC STRIKE TEAM	MK2	05-AUG-92
MK2	CG ATLANTIC STRIKE TEAM	MK2	02-AUG-91

MK2	CG ATLANTIC STRIKE TEAM	MK3	3QTR FY93
MK2	CG ATLANTIC STRIKE TEAM	MK2	12-AUG-91
MK2	MSO TAMPA	MK2	01-DEC-92
MK2	CG PACIFIC STRIKE TEAM	MK2	23-OCT-91
MK3	CG GP NEW YORK	MK3	14-JUN-91
MKC	CG ATLANTIC STRIKE TEAM	MKC	07-JUL-92
MST1	CG ATLANTIC STRIKE TEAM	MST1	15-NOV-91
MST1	CG ATLANTIC STRIKE TEAM	MST2	14-JUN-92
MST1	MSO VALDEZ	MST1	10-JUL-92
MST1	CG PACIFIC STRIKE TEAM	MST1	30-AUG-91
MST1	NATL POLLUTION FUNDS CENTER	MST2	3QTR FY93
MST1	CG PACIFIC STRIKE TEAM	MST1	02-JUL-90
MST1	NATL STRIKE FORCE CENTER	MST1	17-JUL-92
MST2	CG ATLANTIC STRIKE TEAM	MST2	10-APR-92
MST2	MSO CORPUS CHRISTI	MST1	19-JUN-92
MST2	MSO SAN FRANCISCO	MST1	05-JAN-90
MST3	MSO JACKSONVILLE	MST3	09-AUG-91
MST3	MSO MORGAN CITY	MST3	12-NOV-92
MST3	MSO PORT ARTHUR	MST2	06-APR-91
MST3	MSO PUGET SOUND	MST3	18-JUN-91
MST3	CG HEADQUARTERS	MST3	05-AUG-91
MSTC	CG ATLANTIC STRIKE TEAM	MSTC	30-JUL-91
MSTCS	NATL POLLUTION FUNDS CENTER	MSTC	3QTR FY93
PA2	NATL STRIKE FORCE CENTER	PA2	05-AUG-91
PAC	NATL STRIKE FORCE CENTER	PAC	04-AUG-91
PERS	NATL POLLUTION FUNDS CENTER	PERS	03-OCT-91
RADM	NATL POLLUTION FUNDS CENTER	SES	01-JUN-92
QM1	MSO LOS ANGELES/LB	QM1	08-APR-92
QM2	MSO GALVESTON	QM2	18-DEC-92
SK1	CG ATLANTIC STRIKE TEAM	SK1	12-AUG-91
SK1	CG HEADQUARTERS	SK2	07-SEP-90
SK1	NATL STRIKE FORCE CENTER	SK1	3QTR FY93
SK2	CG ATLANTIC STRIKE TEAM	SK3	28-AUG-91
SK2	NATL POLLUTION FUNDS CENTER	SK2	07-APR-92
SK2	CG PACIFIC STRIKE TEAM	SK2	01-JUL-91
SK3	CG ATLANTIC STRIKE TEAM	SK3	01-MAR-92
SK3	CG PACIFIC STRIKE TEAM	SK3	11-MAY-92
SKCM	1ST COAST GUARD DIST -	SKCS	01-JUL-91
SKCM	7TH COAST GUARD DIST -	YNCM	17-JAN-92
SKCM	8TH COAST GUARD DIST -	SKCS	02-DEC-91
SKCS	11TH COAST GUARD DIST	SKC	31-JUL-92
SKCS	13TH COAST GUARD DIST	SKCS	15-JUN-90
SKCS	14TH COAST GUARD DIST	SKCM	04-APR-92
SKCS	17TH COAST GUARD DIST	SKCS	15-SEP-91
SKCS	2ND COAST GUARD DIST -	YNCS	01-NOV-91
SKCS	5TH COAST GUARD DIST -	SKCS	29-MAY-92
SKCS	9TH COAST GUARD DIST -	SKCS	27-JUL-92
SKCS	NATL STRIKE FORCE CENTER	SKC	26-JUL-91
YN1	CG ATLANTIC STRIKE TEAM	YN1	20-SEP-91
YN1	NATL STRIKE FORCE CENTER	YN1	11-JUL-91
YN2	NATL STRIKE FORCE CENTER	YN2	01-NOV-91
YNC	NATL POLLUTION FUNDS CENTER	YNC	03-OCT-91
YNC	NATL POLLUTION FUNDS CENTER	YN1	03-OCT-91

TOTAL MILITARY: 192

Table II lists the civilian positions issued by the Coast Guard to conduct and enforce activities ascribed to the Oil Pollution Act of 1990. The information is based on civilian personnel assignment data as of June 1, 1993. Some vacant positions were previously filled and are currently vacant due to transfers, or other personnel actions. Recent increases in the number of civilian vacancies are the result of the Coast Guard's decision to freeze all civilian hirings. This is a temporary action in response to Executive order 12839.

TABLE II

CIVILIAN POSITIONS

BILLET	LOCATION	FILLED BY	RPT DATE
GS-12	CG HEADQUARTERS	GS-12	15-OCT-91
GS-12	CG HEADQUARTERS	GS-12	12-NOV-91
GM-13	CG HEADQUARTERS	GM-13	27-OCT-91
GS-12	CG HEADQUARTERS	GS-12	03-MAR-92
GM-13	CG HEADQUARTERS	GM-13	01-JUN-91
GS-12	CG HEADQUARTERS	GS-12	17-APR-91
GS-9	CG HEADQUARTERS	GS-9	11-JUN-91
GS-7	CG HEADQUARTERS	GS-7	11-JUN-91
GS-13	CG HEADQUARTERS	GS-13	09-NOV-92
GS-13	CG HEADQUARTERS	GS-13	19-APR-92
GM-13	CG HEADQUARTERS	GM-13	00-JUN-91
GS-9	CG HEADQUARTERS	GS-9	30-DEC-91
GS-9	CG HEADQUARTERS	GS-8	24-DEC-91
GS-9	CG HEADQUARTERS	GS-8	16-DEC-91
GS-12	CG HEADQUARTERS	GS-12	01-SEP-91
GM-14	CG HEADQUARTERS	GM-14	19-APR-91
GM-14	CG HEADQUARTERS	GM-14	19-APR-91
GM-13	CG HEADQUARTERS	GM-13	28-DEC-92
GM-13	CG HEADQUARTERS	GM-13	29-MAR-93
GS-7	CG HEADQUARTERS	GS-7	01-APR-91
GM-15	CG HEADQUARTERS	GM-15	14-APR-91
GM-14	CG HEADQUARTERS	GM-14	04-FEB-91
GM-13	CG HEADQUARTERS	GM-13	04-FEB-91
GM-13	MARINE SAFETY CENTER	GM-13	03-NOV-91
GM-13	MARINE SAFETY CENTER	GM-13	12-JAN-92
GS-6	NATL STRIKE FORCE COORDINATION CTR	GS-6	10-FEB-92
GS-12	NATL STRIKE FORCE COORDINATION CTR	GS-12	28-JUN-92
GS-8	NATL STRIKE FORCE COORDINATION CTR	VACANT	
GS-12	NATL STRIKE FORCE COORDINATION CTR	GS-12	01-NOV-91
GM-14	NATL STRIKE FORCE COORDINATION CTR	GM-14	21-MAR-93
GM-13	NATL POLLUTION FUNDS CENTER	GM-12	02-FEB-92
GM-13	NATL POLLUTION FUNDS CENTER	GM-13	08-MAR-92
GM-13	NATL POLLUTION FUNDS CENTER	VACANT	
GM-15	NATL POLLUTION FUNDS CENTER	GM-15	09-FEB-92
GM-14	NATL POLLUTION FUNDS CENTER	GM-14	23-FEB-92
GM-15	NATL POLLUTION FUNDS CENTER	GM-14	30-JUN-91
GM-15	NATL POLLUTION FUNDS CENTER	GM-15	23-FEB-92
GM-14	NATL POLLUTION FUNDS CENTER	GM-14	19-JUN-91
GM-14	NATL POLLUTION FUNDS CENTER	GM-14	26-JAN-92
GM-13	NATL POLLUTION FUNDS CENTER	GM-13	20-SEP-92
GS-12	NATL POLLUTION FUNDS CENTER	GS-12	28-JUL-91
GS-12	1ST CG DISTRICT	GS-7	08-SEP-91
GS-12	1ST CG DISTRICT	GS-11	07-FEB-92
GS-12	2ND CG DISTRICT	GS-12	31-MAY-92
GS-12	2ND CG DISTRICT	GS-12	14-JUN-91
GS-12	5TH CG DISTRICT	GS-12	07-MAR-92
GS-12	5TH CG DISTRICT	GS-12	08-MAR-92
GS-12	7TH CG DISTRICT	GS-11	08-FEB-92
GS-12	7TH CG DISTRICT	GS-12	04-JAN-92
GS-12	8TH CG DISTRICT	GS-12	20-SEP-91
GS-12	8TH CG DISTRICT	GS-12	06-SEP-92
GS-12	9TH CG DISTRICT	GS-12	10-JAN-92
GS-12	9TH CG DISTRICT	GS-12	31-MAY-92
GS-12	11TH CG DISTRICT	VACANT	
GS-12	11TH CG DISTRICT	GS-12	16-MAY-92
GM-13	13TH CG DISTRICT	GM-13	31-MAY-92
GS-12	13TH CG DISTRICT	GS-12	15-JUN-92
GS-12	14TH CG DISTRICT	GS-11	05-APR-92
GS-12	17TH CG DISTRICT	GS-12	18-MAY-92
GS-12	17TH CG DISTRICT	GS-12	03-MAY-92
GS-8	MSO BOSTON	GS-8	07-FEB-92
GS-6	MSO BOSTON	GS-6	11-MAR-91
GS-7	MIO NEW YORK	GS-7	29-NOV-91
GS-6	MIO NEW YORK	GS-5	07-FEB-92

GS-6	MIO NEW YORK	VACANT	
GS-6	MIO NEW YORK	GS-4	23-NOV-91
GS-5	MIO NEW YORK	GS-4	31-MAY-92
GS-6	MSO MEMPHIS	GS-6	13-FEB-91
GS-5	MSO ST. LOUIS	GS-5	07-APR-92
GS-7	MSO BALTIMORE	GS-7	07-MAY-92
GS-6	MSO BALTIMORE	VACANT	
GS-7	MSO MIAMI	GS-5	07-MAR-92
GS-7	MSO MIAMI	GS-7	07-JUN-91
GS-6	MSO MIAMI	GS-5	21-FEB-92
GS-6	MSO MIAMI	GS-5	12-NOV-91
GS-5	MSO CHARLESTON	VACANT	
GS-8	MSO NEW ORLEANS	GS-7	13-JUN-91
GS-6	MSO NEW ORLEANS	GS-6	01-SEP-91
GS-6	MSO NEW ORLEANS	GS-6	07-FEB-92
GS-6	MSO NEW ORLEANS	GS-6	14-MAR-92
GS-5	MSO NEW ORLEANS	GS-4	13-JUN-91
GS-6	MSO HOUSTON	GS-6	21-OCT-92
GS-7	MSO TOLEDO	GS-7	18-OCT-91
GS-6	MSO TOLEDO	GS-6	29-JUL-91
GS-8	MSO LOS ANGELES-LONG BEACH	GS-6	27-JUN-92
GS-6	MSO LOS ANGELES-LONG BEACH	GS-5	10-MAY-92
GS-6	MSO SAN FRANCISCO	GS-5	09-SEP-92
GS-6	MSO SAN FRANCISCO	GS-6	29-JAN-92
GS-6	MSO PORTLAND	VACANT	
GS-6	MSO PUGET SOUND	GS-6	25 JUL-92
GS-6	MSO PUGET SOUND	GS-5	14-SEP-91
GS-6	MSO HONOLULU	GS-6	21-MAR-92
GS-6	MSO HONOLULU	GS-6	09-JAN-92
GS-6	MSO JUNEAU	GS-5	27-JUN-92

TOTAL CIVILIAN:	94
TOTAL MILITARY:	192
TOTAL:	286

(281) SENATOR LAUTENBERG: How will the executive order base reductions deleting 142 civil service positions effect the civilian OPA 90 positions?

ADMIRAL KIME: The process which will help us decide where the reductions should occur is described in question number 493. The process is still under development. We expect to complete the first phase of this process to meet the 1994 reduction level before the beginning of FY 1994. Therefore, it is premature to discuss what affect the reductions will have on OPA 90 positions until we have identified and rank ordered the pool of candidate vacant positions.

The process will contain sufficient flexibility to keep critical positions filled. It is likely that the reductions will not adversely impact the OPA 90 program.

(282) SENATOR LAUTENBERG: Some of the difficulty in filling the enlisted billets last year with fully qualified personnel was attributed to the fact that there is no specific marine safety rating. Is this problem sufficient to warrant the implementation of a marine safety specific rate?

ADMIRAL KIME: No. The Coast Guard's report to Congress on marine safety assignments, sent to the Committee on July 6, 1993, indicates that these enlisted billets are over 99% filled as of May 15, 1993. Your concern over the filling of enlisted billets with "qualified" personnel is primairly related to training. It takes 12-24 months to properly train our enlisted personnel in marine safety duties. Due to rapid program growth many enlisted personnel recently assigned to marine safety duties are relatively inexperienced in the field. They will gain experience through formal training and on the job training, increasing the effectiveness of the program and build a pool of experienced personnel for assignment to subsequent tours in marine safety.

(283) SENATOR LAUTENBERG: In last years Senate Hearing record you noted that the lack of a marine safety specific rate necessitated the utilization of a variety of rates to fill OPA 90 billets. As I understand the Marine Safety Technician (MST) rate to offer the best 'fit' please explain why despite an apparent shortage in the field, some members awaiting MST Class A school have reportedly dropped their names from the list due to an excessive wait to enter school. How long must a member selected for MST school wait before he enters the program? Does a shortage of MST's in fact exist? If so, why is this program not accelerated to meet the demand?

ADMIRAL KIME: Over the past three years the MST rate has grown by 142%. This growth was attributed not only to OPA 90 initiatives but also requirements for advanced training instructor billets, and International Environmental Safety billets. As this rating grew it created an immediate shortage of people to fill the positions. This growth period has been managed and at this time the rate is at 102% of authorized strength.

The number of Class A school classes and the number of students per class are based on known or proposed billet changes and projected personnel losses, e.g., retirements, administrative discharges, etc. Selected students currently wait 24 months to start class; one of 12 rate schools that have waiting periods of 24-30 months. At one point last year, the wait for MST Class A school was 32 months. This longer waiting period occurred when the Coast Guard's Sonar Technician (ST) rating was disestablished. The affected ST's were given the opportunity to place their name on any Class A school list for which they were qualified; many chose the MST rate.

TRAINING

(284) SENATOR LAUTENBERG: What is your current assessment of the general level of training of Coast Guard members? What specific deficiencies, if any, exist? How does this compare to last year's assessment?

ADMIRAL KIME: Two studies of the Coast Guard's Training System completed within the last year (DOT IG audit in June 1992, and the Training System Focus Group in March 1993) indicate that not all Coast Guard personnel report to a unit properly trained to assume their duties. Nor do they necessarily acquire all of their required training through the Coast Guard's formal training system due to a lack of quota availability and/or the ability of their unit to provide the time away from the job. Therefore, a number of training requirements are completed at the unit level in a less than optimal manner, which can be at the expense of mission degradation or increased workloads.

Both studies recommend that better coordination and prioritization of formal and on-the-job training requirements would help ensure that personnel have the job skills they need. The Coast Guard is in the process of chartering various study groups to provide specific recommendations to improve he current state of training.

In the case of new initiatives, we apply performance technology which requires thorough problem analysis, consideration of all alternatives, and the pursuit of the appropriate intervention which does not necessarily involve costly formal training. When training is the solution, we are making better use of technology such as video tapes and videoconferencing, where these delivery methods are appropriate. To stretch our limited training resources we also employ exportable training whenever possible. Exportable training minimizes travel costs and disruption to our operational units.

New courses and increased numbers of convenings have been put in place to solve marine safety and environmental protection concerns. Increased convenings of the Chief Petty Officers' Academy and leadership classes for officer and enlisted personnel, improved leadership curriculum for our entry level officers at the Coast Guard Academy and Officer Candidate School, and formal indoctrination for key civilian personnel has improved the overall leadership and management program of the Coast Guard.

BOARDING OFFICER QUALIFICATIONS

(285) SENATOR LAUTENBERG: Given the extraordinary growth in the volume and complexity of regulations which your boarding officers are responsible for enforcing, are you comfortable that these responsibilities are placed in individuals of adequate experience and rank?

ADMIRAL KIME: Yes, I am comfortable with the experience level and rank of Marine Safety and Marine Inspection Offices' boarding officers. Before an individual receives designation as a boarding officer, he/she must complete a qualification program that consists of resident training at our Reserve Training Center in Yorktown, Virginia, and local unit training which includes completion of an on-the-job (OJT) training manual with tasks that must be satisfactorily accomplished in the presence of qualified boarding officers. When all requirements have been successfully completed, the command issues a letter of designation signifying qualification as a boarding officer.

(286) SENATOR LAUTENBERG: What steps have/are being taken to provide improved training and increased experience and enhanced oversight of boarding officers?

ADMIRAL KIME: In December 1992, the Standard Vessel Boarding Program guidance was rewritten, updated and repromulgated in the Marine Safety Manual. It provides a detailed description of boarding procedures for each type of boarding conducted. We have also updated and redistributed our on-the-job qualification manuals to ensure personnel are being trained in the current responsibilities and functions required of them as boarding officers.

The Marine Environmental Protection (MEP) Division is presently developing a Pollution Prevention Compliance (PPC) Visitation Program. This program consists of a PPC check-off list and guidance on how to target vessels for visits during bulk liquid cargo transfers. MEP staff personnel have also been visiting units and instructing them on MARPOL enforcement boarding strategies and case preparation.

We regularly review curriculum outlines and maintain close liaison with the schools at our Reserve Training Center in Yorktown, Virginia, to ensure the latest information is included in our training courses.

We have just completed an extensive review of the experience levels among Coast Guard marine safety personnel. We are still in the process of evaluating the significance of this information.

MARINE ENFORCEMENT PERSONNEL TRAINING

(287) SENATOR LAUTENBERG: One of the most common complaints of your Captains of the Port across the country is that no sooner do they have a marine inspector or marine investigator adequately trained, then they are transferred out of the port or out of the marine safety program period. You recently stated that you have succeeded in reducing by 21% the number of personnel transfers within the Coast Guard. Has this reduction resulted in greater longevity by marine inspectors and marine investigators in their positions, so that we benefit from their training before they are transferred?

ADMIRAL KIME: As a rule, assignment officers have sought to retain qualified/experienced marine inspectors and investigators at the same unit for as long as possible. The 21% reduction in personnel transfers you refer to is largely attributable to changes in enlisted transfer policies, as opposed to officers assigned to marine inspector and marine investigator duties. A new transfer policy scheduled to be implemented shortly, will extend the tour length from three to four years for all but Commanding Officer, Executive Officer, and entry level assignments. This should improve the retention of experienced personnel at Captain of the Port offices. The following table shows the current transfer policy for personnel assigned to marine safety activities.

Resource	Tour Length Policy
Officer Assignments	
Entry level ENS/LTJG*	4 yrs
Commanding Officers	3 yrs
Executive Officers	3 yrs
Inspector Trainees	2 yrs
All other assignments	3 yrs
Enlisted Assignments**	
E-6 and below	4 yrs
E-7 and above	4 yrs

* Nontraining port assignments.

** Once a first class petty officer (E-6) is promoted to chief petty officer (E-7), he/she is usually transferred to a new duty assignment. Thus, first class petty officers typically experience a shorter than expected tour length. Shorter than expected tour length also occur as a result of retirements or expiration of enlistments.

(288) SENATOR LAUTENBERG: How much money have you saved by reducing the number of transfers by 21 percent?

ADMIRAL KIME: While we are projecting a 19% decrease in the total number of AFC-20 funded travel orders (TONO's) between FY's 1991 and 1993, we are only projecting about a 1% decrease in AFC-20 expenditures for the same period.

The AFC-20 account covers a significant number of expenses that are not directly related to permanent change of station events (such as the return of remains, dependent student travel out of the continental U.S., accessions, separations, etc.) In addition, due to the nature of the travel entitlements, expenditures against the account can occur for up to five years after the fiscal year in which the travel was accomplished. (At the end of a fiscal year, the exact actual expenditures are unknown and must be estimated. Postings to the account continue for as long as five years after the fiscal year in question.)

Projected FY93 average transfer costs (ATC's) are greater than FY91 ATC's due to inflation, travel entitlement increases, and continuous updating based on previous fiscal year AFC-20 expenditure data. As indicated in our FY94 request for PCS allowance increases (BUDCAT II-D-2) recent entitlement changes (i.e. mileage in lieu of transportation (MALT), the extension of temporary living expenses (TLE), the reimbursement to members to drive two personal vehicles during a PCS move) are expected to increase AFC-20 costs. These increases would have required significant increases in AFC-20 funding had the number of permanent change of station transfers not been reduced.

The most recent FY91 actual expenditure data from the AFC-20 account was $63.3M. Our most recent FY-93 estimate is approximately $62.5M. This reflects minimal differences over the two year period. Therefore, the reduction in the number of transfers has resulted in cost avoidances, not savings.

(289) SENATOR LAUTENBERG: What other benefits have accrued to other Coast Guard programs by improving the geographic stability of your people?

ADMIRAL KIME: If a member is extended in a tour to promote geo-stability, permanent-change-of-station (PCS) costs can be deferred to a subsequent transfer season. Additionally, since there is no turnover in that particular billet, training costs associated with preparing a prospective member for that assignment would also be deferred. However, training costs are not avoided when moving a person from one billet to another in the same geographic area (which is another form of geo-stability).

Under geo-stability, the member and the member's family benefits from the ability to establish "roots" in a specific location for a longer period of time. The member may also benefit financially. For example, by extending in a location, the member can build more equity in a home, or the loss on the sale of a home can be deferred and, the costs of moving, which typically exceed the standard reimbursement, can be deferred. The geo-stability assignment consideration complements other Coast Guard Work-Life efforts.

However, the Coast Guard remains a military, armed force subject to deployment and immediate reassignment. This program does not in any way prohibit the Coast Guard from reassigning a member to any geographic location pursuant to the "needs of the service."

(290) SENATOR LAUTENBERG: Please supply historical data for each of the last five years for average tour lengths for:

- Marine Inspectors
- Marine Investigators
- Enlisted boarding petty officers
- MSO personnel in general

ADMIRAL KIME: Our Personnel Management Information System (PMIS) does not provide assignment data based on a specialty code assignment. In general, individuals are reassigned consistent with existing transfer policies. For marine inspectors and marine investigators, previous policy was to transfer personnel after three years. The transfer policy is now four years. Enlisted personnel are transferred after four years.

INCREASE IN LENGTH OF "M" TOURS

(291) SENATOR LAUTENBERG: What is the current length of "M" tours for both officers and enlisted members? Were these tour lengths recently revised? If so, what were they previously and why were they revised? If not, are there any plans to change the standard tour lengths in the future? If so, what are they and when will they be implemented?

ADMIRAL KIME: INCONUS tour lengths for Marine Safety billets are as follows:

Tour Length	Billet Description
2 Years	Port Marine Inspector Training Billet
3 Years	CO, XO, Detachment Supervisor, Duty (0-3 & above), Entry Level Staff (0-1 & 0-2), E-5 & below
4 Years	Entry Level Duty (0-1 & 0-2), CWO, Staff (0-3 & above) E-6 & above

OUTCONUS tour lengths for marine safety officers and enlisted vary in duration from one to four years depending on how arduous the duty is considered, and whether or not dependents are permitted to accompany the member.

The Marine Safety Officer "duty" tour lengths for 0-3's and above were reduced from four years to three years in 1989. We made this change because we believed the three-year tour length would allow more opportunity for our officers to move into jobs of increased responsibility. Because of the need to properly assimilate new marine safety specialists, after rapid billet growth, we are returning these tour lengths to four years. This change is effective for those transferring this year. In addition, we will be liberal in granting tour length extensions to those currently assigned three-year tours.

Tour lengths for enlisted members have not been recently changed, nor are there any plans to do so. Although in FY93, the Coast Guard revised its enlisted assignment policies for both mid-grade (E-4 through E-6) and senior (E-7 through E-9) enlisted personnel. The result was the creation of the Senior Enlisted (SEAP) and Petty Officer Assignment Policies (POAP). These policies are similar in that they allow personnel, upon advancement, to remain in the same assignment until completion of a normal tour of duty. This has reduced the number and frequency of enlisted assignments overall, as well as the disruption to both the Coast Guard and our members. We have complemented this effort by encouraging geographic stability. We have achieved this by liberally granting assignment extensions and allowing two tours of duty in the same local area or region (where possible). This has also contributed to fewer assignments. While tour lengths for enlisted personnel have not recently changed, the effect of these policies should increase the average actual tour length.

(292) SENATOR LAUTENBERG: Are there any plans to revise tour lengths in any other program? If so, please describe the specifics of the revisions and the reasons for the changes.

ADMIRAL KIME: To improve geographic stability, the INCONUS tour lengths for U.S. Public Health Service Officers assigned to the U.S. Coast Guard were increased from four years to five years during the 1993 assignment season.

We have revised Law Enforcement Detachments (LEDET) officer tour lengths from three years to two years, owing to the arduous nature of that duty. LEDET tours will be the same as for those officers going to a consecutive afloat assignment after their entry level tour of duty.

We have decreased High Endurance Cutter (WHEC) and Polar Class Icebreaker (WAGB) Engineering Officer tour lengths from three years to two years, due to the arduous nature of that job.

Tour lengths for enlisted members have not changed, except tours will be extended as provided for under the the revised Senior Enlisted (SEAP) and the Petty Officer Assignment Policies (POAP) discussed in the previous question.

(293) SENATOR LAUTENBERG: What is the average length of time in specialty for your marine inspectors and marine investigators?

ADMIRAL KIME: The following table illustrates the average program experience of our officers assigned to the marine safety program:

RANK	"M" Program Experience (average # months)
ENS/LTJG	21
LT	59
LCDR	118
CDR	155
CAPT	177
WARRANT	99

(294) SENATOR LAUTENBERG: Please provide information to indicate the rapidity with which billets were filled for all newly-funded 'M' initiatives in FY 1992 and FY 1993. Were these billets filled at the rank and rate for which they were created? What limitations exist which restrict you from adequately filling these billets sooner?

ADMIRAL KIME: The following table lists the number of billets issued in fiscal years 1992 and 1993.

Initiative	(FY)	OFF	CWO	ENL	CIV	Total
Fishing Vessel Safety	92	5	3	14	23	45
Vsl/Facility Response Plans	92	4	0	35	1	40
Marine Inspectors	92	20	11	4	1	36

Supplemental Inspectors	92	15	10	2	0	27
Casualty-Poll. Investigators	92	15	0	0	1	16
Drug & Alcohol Enforcement	92	17	1	0	1	19
RBS Factory Inspections	92	0	1	6	0	7
Marine Inspectors	93	13	14	0	0	27
Non-Indigenous Species	93	0	0	8	0	8
Pre-positioned Equipment	93	0	0	1	0	1
International Trng Teams	93	4	1	4	0	9
Sum Totals		93	41	74	27	235

In examining the reporting dates for the military personnel ordered into these new billets, we found 51 were filled within 3 months of the billet's issuance date, 138 billets were filled during the normal summer transfer season. 7 billets were filled during the fall/winter season and 12 billets have individuals ordered in. Delays in reporting dates for some enlisted personnel were the result of a change in policy regarding MST training. These personnel graduating from Marine Safety Technician (MST) "A" school are now attending Marine Safety Petty Officer's Course (MSPOC) prior to reporting to their unit. This policy has resulted in some "delayed" reporting dates, but is consistent with our efforts to recruit, train and assign productive people. In reviewing the civilian positions we found that all but two of the civilian positions were filled within eight months of the issuance date. Delays in filling civilian positions are attibutable to the longer process used in recruiting civilians. Two positions remain vacant. These two vacancies are the result of the Coast Guard's decision to invoke a moratorium on the hiring of Federal Civilians. This moratorium is a temporary action in response to Executive Order 12839.

MARINE SAFETY LINE OFFICERS

(295) SENATOR LAUTENBERG: Have specialty or "line" officers ever been considered for the marine safety program in an effort to better retain the specialization required in that program? If so, what are the benefits and disadvantages of such a proposal? If not, why not?

ADMIRAL KIME: We currently have many officers who spend their entire career in marine safety. In general, officers who are in marine safety billets will have follow-on tours in the marine safety field. Some officers may do an out-of-specialty tour afloat or in another program, but this is by far the exception rather than the rule. We are keeping our trained marine safety people employed within that specialty. Multiple tours within Marine Safety ensure that officers receive well-rounded experience prior to assignment as a Commanding Officer of a Marine Safety Office. But, while we retain this practice, we have no plans to create a "corps" of marine safety specialists. A discrete specialty corps, given the small total number of Coast Guard officers, presents an insurmountable promotion and assignment challenge given current law governing officer promotion and assignment procedures.

DEATH OF MARINE INSPECTOR

(296) SENATOR LAUTENBERG: Only three months ago, you lost one of your marine inspectors, LCDR Turek, in a tragic carbon dioxide accident while inspecting a merchant ship. Is there any indication at this time that this accident could have been avoided?

ADMIRAL KIME: One purpose of conducting our marine casualty and MISHAP investigations is to determine how to prevent similar accidents in the future. The events leading up to the casualty are examined to determine the causes, and recommendations are made for the prevention of similar casualties in the future. In this case, the formal hearings are completed and the final reports are being written. When the final reports are completed and approved, I will be able to provide a response to your question.

(297) SENATOR LAUTENBERG: What steps have you taken to ensure that a similar accident is not repeated?

ADMIRAL KIME: On March 26, 1993, we issued a Carbon Dioxide (CO2) System Safety message to all Coast Guard units. The message addressed the casualty involving LCDR Turek and included the following information:

All personel assigned to spaces protected by CO2 flooding systems will be required to complete hazard awareness training; only properly trained and supervised personnel will be involved in maintenance and testing of CO2 systems; prior to conducting maintenance or testing of CO2 systems, all Coast Guard personnel involved must be thoroughly briefed, to include individual responsibilities, testing or maintenance procedures, safety considerations and emergency procedures; all Coast Guard personnel involved in testing or maintenance of CO2 systems shall carry emergency escape breathing apparatus and be trained in its use; trained and properly equipped rescue parties must be readily available at Coast Guard facilities; reliable communications must exist among all parties; and Coast Guard personnel are prohibited from entering or remaining in any protected space during testing.

We have also identified all commercial United States flagged vessels on our Marine Safety Information System (MSIS) that have installed low pressure CO2 systems like the one on board the vessel where LCDR Turek died. We then created a separate class for these vessels on MSIS and assigned a special inspection note for our marine inspectors. Prior to inspection of these vessels, the inspectors will be made aware of the unique nature of the CO2 system when they enter MSIS to research the vessel's history. A MSIS data search is a routine procedure conducted by all marine inspectors prior to boarding vessels to conduct inspections.

(298) SENATOR LAUTENBERG: Is there any indication of any training deficiencies that need to be addressed in order to insure that a similar accident is not repeated?

ADMIRAL KIME: The issue of training was addressed during our marine casualty and MISHAP investigations. The final reports will discuss any training deficiencies that need to be addressed. When the final reports are completed and approved, I will be able to provide a response to your question.

(299) SENATOR LAUTENBERG: Please provide a copy of the marine casualty investigation and the MISHAP Report for this incident.

ADMIRAL KIME: The final reports are currently being written. I will provide copies when they are completed and approved.

SONAR TECHNICIAN RATING

(300) SENATOR LAUTENBERG: How much of the estimated $2M savings have been realized in FY 1993? If not all of the anticipated savings have been realized, why not, and when will the full associated savings be realized?

ADMIRAL KIME: FY 1994 budget line item I-D addresses the proposed reduction in Anti-Submarine Warfare (ASW) mission capabilities and the associated Sonar Technician (ST) Rating.

The following is a summary of action taken thus far. Removal of all ASW equipment is in progress with only two cutters remaining: CGC HAMILTON and CGC DALLAS. CGC HAMILTON is scheduled for equipment removal during the period 23 Aug-2 Sep 93; CGC DALLAS is scheduled for the period 20-30 Sep 93. ST personnel assisting in the equipment removal will be reassigned in early FY94 when sonar equipment removal is complete.

ST personnel had to elect a new career option by 1 Feb 93; the personnel actions to effect these options will be completed by 1 Feb 94. These actions include reassignments, changes in rate, discharges, separations, and retirements. The following is the status of ST personnel:

38	Separations
2	Involuntary discharges
4	Medical discharges (3 pend)
1	Officer Candidate School
4	Retirements (3 pend)
113	Changing rate and remaining in service
162	

Approximately $1,514,872 in savings has been realized in FY 1993 due to separations, discharges and retirements.

IG FINDING OF UNNECESSARY AVIATION PAY

(301) SENATOR LAUTENBERG: Earlier this year, the DOT Inspector General found substantial irregularities in your procedures for providing aviators supplemental aviation related pay. The IG estimated that you could save up to $1.1 million by limiting the number of personnel assigned to flying status and eliminating overpayment.

Given the current state of layoffs in the aviation industry, why do we continue to allow supplemental flight pay at all?

ADMIRAL KIME: The statutes and Executive Orders governing entitlement to hazardous duty incentive pay (HDIP) and aviation career incentive pay (ACIP) for flying duty, 37 U. S. Code 301 and 301a and Executive Order Nos. 11157 and 11800, do not authorize the Coast Guard to discontinue paying HDIP and ACIP to eligible members based on either the aviation industry's employment trends or the Coast Guard's retention rates for these members. We are required to pay HDIP or ACIP to all members who are on flight orders and who meet the flight time requirements prescribed in Executive Order No. 11157.

In response to the DOT IG audit findings, the Coast Guard reviewed its policies and procedures for issuing flight orders, tracking individual flight time, and managing HDIP and ACIP payments. As a result of this review, the Coast Guard is in the process of revising these policies and procedures and improving the accuracy of HDIP and ACIP payments.

While one function of providing HDIP and ACIP to members who fly frequently and regularly is to attract and retain sufficient numbers of them to meet service needs, these incentive pays also compensate these members for the dangerous character of this duty. While recruitment and retention rates may be affected by employment trends in the aviation industry, the dangerous character of the duty remains. The Coast Guard supports retaining the current statutory authority and Presidential regulations authorizing the payment of HDIP and ACIP to members who are ordered to fly and perform frequent and regular flights.

(302) SENATOR LAUTENBERG: How realistic is the concern that you are going to lose pilots to private industry or other military services, both of whom are laying off pilots?

ADMIRAL KIME: For the first time in Coast Guard aviation history, the Coast Guard is at strength in number of pilots in both the rotary and fixed-wing communities. We have experienced this condition for only the last two years, and we expect it to continue only through 1995 when the civilian airlines are expected to resume hiring. This expectation of increased hiring is based on projections by the civilian aviation community of their retirement and attrition rates, particularly the retirement of significant numbers of Vietnam-era pilots.

We currently lose about 5% of our aviators annually, through retirements, involuntary & voluntary release from the service, and other forms of attrition. Resignations from the Coast Guard immediately after completing terms of obligated service from flight training vary considerably depending on the civilian hiring climate. Voluntary attrition prior to retirement can be as high as 35% of those eligible. At present, the Coast Guard is only training enough pilots to meet service needs. Although the concern for loss of pilots to the civilian community today is considerably lower than historical trends, the potential for loss exists in the future and must be anticipated. Those that depart the service take with them their talents as aircraft commanders - an experience and competency level that takes a minimum of two to three years to achieve. Individuals being trained today will be the replacements for the aircraft commanders departing in 1995-1996.

(303) SENATOR LAUTENBERG: Why does it make sense to continue to provide flight pay to some of your military personnel who are only a few years away from reaching their 20 year retirement threshold? Do you really think they are going to leave the Coast Guard after 17 years?

ADMIRAL KIME: The statutes and Executive Order governing the entitlement to hazardous duty incentive pay (HDIP) and aviation career incentive pay (ACIP) for flying duty, 37 U. S. Code 301 and 301a and Executive Order No. 11157, do not authorize the Coast Guard to discontinue paying HDIP and ACIP to eligible members based on near-eligibility for retirement. The only aviation personnel precluded by law from eligibility for flight pay are officers in pay grades O-7 or above with at least 25 years of officer service. The Coast Guard is required to pay HDIP to all members who are on flight orders and who meet the flight time requirements prescribed in Executive Order No. 11157 and to pay ACIP to all other officers designated as aviators who meet the operational flying time requirements of 37 U. S. Code 301a.

While Coast Guard members are eligible to retire upon completion of 20 years of active duty service, the Military Retirement Reform Act of 1986 revised the retired pay benefits for members who first became a member on or after August 1, 1986 in an effort to induce them to complete 30-year active duty careers. Discontinuing HDIP or ACIP for members nearing 20 years of active duty service could be viewed as conflicting with the purpose of the Military Retirement Reform Act of 1986 by inducing them to retire from military service upon 20 years of active duty service.

While the primary function of providing HDIP and ACIP to members who fly frequently and regularly is to attract and retain sufficient numbers of them to meet service needs, these pays also compensate these members for the dangerous character of this duty. While attrition rates of near-retirement eligible members may be lower than members with less active duty time, the dangerous character of this duty remains. The Coast Guard supports retaining the current statutory authority and Presidential regulations authorizing the payment of HDIP and ACIP to members who are ordered to fly and perform frequent and regular flights.

SUPPLEMENTAL PAY

(304) SENATOR LAUTENBERG: Please provide a list of all existing categories of supplemental pay (including incentive, flight, hazardous duty, special duty, and any others not entitled to ALL members or considered as allowances) across the entire Coast Guard for officer and enlisted members, a brief description of each including justification and criteria as to who qualifies for receipt, a breakdown of the number of members who actually receive each category of pay, and an annual cost for each category.

ADMIRAL KIME: The following provides the requested information:

Hazardous Duty Incentive Pay (HDIP) was established to attract and retain volunteers for 11 specific types of hazardous duty and compensate these members for their performance of these more dangerous than normal duties. Only three of these duties apply to Coast Guard members: duty involving participation in aerial flight as a crew member and as a noncrew member, and duty involving participation in flight operations on the flight deck of a ship. To be entitled to HDIP, a Coast Guard member must be on orders to perform the hazardous duty and meet the minimum number of flight hours (for aerial flight duty), or the number of days or flight deck evolutions (for flight deck duty) specified in Executive Order 11157. The Coast Guard paid HDIP to an average of 3,443 members each month at a total cost of $6,148,886 during FY92.

Aviation Career Incentive Pay (ACIP) was established to attract and retain officer volunteers for a more dangerous than normal career in military aviation. To be entitled to ACIP, an officer must be in training leading to or hold an aviation designation, and meet the minimum operational flying time requirements specified in 37 U. S. Code 301a. The Coast Guard paid ACIP to an average of 1,133 officers each month at a total cost of $6,249,713 during FY92.

Aviation Officer Continuation Pay (AOCP) was established as a bonus to improve the retention of military aviators with specific qualifications when the services are experiencing shortages of these personnel. To be entitled to AOCP, the officer must be in an aviation specialty designated as critical by the Secretary concerned; meet certain pay grade, aviation service, and ACIP entitlement criteria; and execute a written agreement to remain on active duty in aviation service for at least one year. The Coast Guard has not requested any aviator specialties be designated as critical and has never paid AOCP.

Diving Duty Pay was established to attract and retain volunteers for diving duty and compensate them for their performance of this more dangerous than normal duty. To be entitled to this pay, Coast Guard members are required to maintain proficiency as a diver and be under orders to and actually performing diving duty. The Coast Guard paid Diving Duty Pay to an average of 27 members each month at a total cost of $50,087 during FY92.

Certain Places Pay was established as a token payment for members assigned to certain designated locations outside the continental United States to compensate them for the greater than normal rigors of service in these locations. To be entitled to this pay, Coast Guard members must be permanently assigned to a designated location. The Coast Guard paid Certain Places Pay to an average of 1,026 enlisted members each month at a total cost of $157,094 during FY92.

Career Sea Pay was established to improve the retention of members with sea-service skills and to compensate them for the greater than normal rigors of sea duty. To be entitled to this pay, Coast Guard members must be assigned to a Career Sea Pay eligible vessel or mobile unit and, for commissioned officers only, must have served at least three years of sea duty. The Coast Guard paid Career Sea Pay to an average of 6,200 members at a total cost of $12,843,999 during FY92.

Responsibility Pay was established to compensate officers holding critical positions of unusual responsibility. Only Coast Guard officers assigned as commanding officer of a Coast Guard cutter are entitled to this pay. The Coast Guard paid Responsibility Pay to an average of 128 officers each month at a total cost of $115,464 during FY92.

Special Duty Assignment Pay (SDAP) was established to attract and retain enlisted volunteers for certain extremely demanding duties or duties demanding an unusual degree of responsibility. To be entitled to SDAP, Coast Guard enlisted members must be assigned as an officer-in-charge of a shore unit or cutter, as a rescue swimmer, to the National Strike Force, as a special agent to the International Maritime Law Enforcement Team, as a recruit company commander or assistant recruit company commander, or to recruiting duty. The Coast Guard paid SDAP to an average of 674 enlisted members a total of $1,147,181 during FY92.

Reenlistment and Enlistment Bonuses were established to attract persons to enlist and retain them in military skill specialities experiencing critical personnel shortages. To be entitled to this pay, an individual must enlist in the Coast Guard for a minimum period of active duty in a skill designated as critical or a member in a critical skill must reenlist for a minimum period of active duty during a specific period during the member's career. The Coast Guard paid reenlistment and enlistment bonuses to 2,979 members at a total cost of $8,240,909 during FY92.

Hostile Fire/Imminent Danger Pay was established to compensate members serving in foreign countries during peacetime who are subject to hostile fire or explosion of hostile mines or are serving in a designated dangerous area. To be entitled to this pay, members must be subjected to hostile fire or explosion of hostile mines; be killed, injured or wounded by hostile fire, explosion of hostile mines, or any other hostile act; or be serving on official duty in an area designated by the Coast Guard. The Coast Guard paid Hostile Fire/Imminent Danger Pay to an average of 59 members each month at a total cost of $122,988 during FY92.

(305) SENATOR LAUTENBERG: Please indicate the formal mandate for each category, whether required by law, regulation, policy, or consistency with Department of Defense policy.

ADMIRAL KIME: The information follows:

CATEGORY	STATUTE	FORMAL MANDATE
Hazardous Duty Incentive Pay	37 USC 301	Statute and conformance with Executive Order 11157 and DOD regulations.
Aviation Career Incentive Pay	37 USC 301a	Statute and conformance with DOD regulations.
Aviation Officer Continuation Pay	37 USC 301b	Not paid by Coast Guard policy.
Diving Duty Pay	37 USC 304	Statute and conformance with DOD regulations.
Certain Places Pay	37 USC 305	Statute and Coast Guard policy.
Career Sea Pay	37 USC 305a	Statute and conformance with Executive Order 11157 and DOD regulations.
Responsibility Pay	37 USC 306	Coast Guard policy.
Special Duty Assignment Pay	37 USC 307	Coast Guard policy.
Reenlistment & Enlistment Bonuses	37 USC 308 37 USC 308a	Coast Guard policy.
Hostile Fire/ Imminent Danger Pay	37 USC 310	Statute and DOD regulations (Coast Guard has no authority to issue separate regulations).

Note: The official authorized by each statute to prescribe regulations governing the entitlement to that pay differs among the statutes. When authorized to prescribe regulations governing entitlement to these pays, the Coast Guard's (CG's) regulations are required by 37 USC 1001 to, as far as practicable, conform to the applicable DOD regulations. Where Executive Order 11157 applies, it requires that any supplemental regulations prescribed by the uniformed services shall be uniform to the fullest extent practicable. Unless otherwise stated, the rates of pay are specified by the statute.

(306) SENATOR LAUTENBERG: Please provide for each category of incentive pay applicable retention and recruiting statistics.

ADMIRAL KIME: Incentive pays generally serve two purposes: (1) to attract and retain volunteers for specific types of hazardous duty and (2) to compensate these members for their performance of these more dangerous than normal duties. Before ACIP was established as a separate pay for military aviators, these officers received HDIP as crew members. While ACIP was developed to counter military aviator retention problems, the hazardous nature of flying duty remains.

The following table provides the requested information:

CATEGORY	RECRUITING AND RETENTION STATISTICS
Hazardous Duty Incentive Pay (Flying Duty)	The Coast Guard does not track recruitment statistics for the enlisted aviation skill specialties assigned to flying duty. These members are not offered enlistment or reenlistment bonuses and the Coast Guard does not have a shortage of qualified members requesting training in these skill specialties. The retention rate for all enlisted aviation skill specialties for members reaching the end of their first enlistment during FY92 was 79%. During the first six months of FY93, these members have continued to reenlist at the same rate as FY92.
Hazardous Duty Incentive Pay (Flight Deck Duty)	In the Coast Guard, shipboard flight deck duties are assigned to individual officers and enlisted members in several different military skill specialties by the vessel commanding officer. No separate recruiting or retention statistics are tracked for these individuals. Coast Guard-wide skill specialty statistics would not necessarily reflect these members' retention patterns.
Aviation Career Incentive Pay	For the past five years, the average annual number of officers applying for the Coast Guard flight training program is approximately 200 with an annual selection of 50 applicants for training. The retention rates of officers who have completed their obligated service for flight training during the past five years have ranged from 65% to 95%. Based on these statistics, ACIP appears to be fulfilling its intended purpose for Coast Guard aviation.

AVIATION INCENTIVE PAY

(307) SENATOR LAUTENBERG: Provide the following data concerning personnel in the Coast Guards flight program for the past five years: (1) the number of annual officer applicants for flight training and (2) the number of annual enlisted applicants for Class "A" Schools within the aviation rating. For each of the two categories, indicate the number of individuals accepted into each respective program and the number of voluntary separations at the end of the members' commitment.

ADMIRAL KIME: For the past five years, the average annual number of officers applying for the Coast Guard flight training program is approximately 200 with an annual selection of 50 applicants for training. For the enlisted aviation Class "A" Schools, approximately 450 members annually submit requests for attendance to schools with 300 selected for training.

Officers who are selected for, and complete the flight training program incur five years of obligated service. All those who have attended flight training within the last five years have not completed their commitment and thus, are not yet eligible for voluntary sparation from the service. However, the resignation rates of officers who have completed their obligated service for flight training within the past five years have ranged from 5% to 35%. Enlisted members attending aviation Class "A" Schools, on the other hand, have obligated service varying from 2 to 3 years depending on the length of each "A" School. Based on our first term re-enlistment data for personnel who have completed all commitments, our voluntary separation rate of enlisted aviation personnel for FY88 was 35%, FY89 - 31%, FY90 - 40%, FY91 - 16%, and FY92 - 21%.

(308) SENATOR LAUTENBERG: Please provide a listing of all liaison billets along with the personnel and operational costs associated with the billets and a brief description of their duties. Have any liaison billets been added or deleted from last year's list? If so, why?

ADMIRAL KIME: The following table lists the current Coast Guard liaison billets. Associated personnel and operational costs are included. Additions and deletions are identified on the bottom of the table.

LIAISON BILLETS
(as of June 93)

Unit Name	Grade	Billet Title	Personnel Costs	Operational Costs
7th District Staff	LCDR	CG Liaison – American Embassy Nassau	$62,315	$13,180
	CDR	CG Liaison – American Embassy Haiti	$73,008	$13,180
	POC	Human Relations School – DEOMI Patrick AFB, FL – Instructor	$38,457	$7,959
	LT	Human Relations/Liaison – DEOMI Patrick AFB, FL – Instructor	$54,293	$9,606
14th District Far East Section	CAPT	Section Commander/Liaison U.S. Forces Japan	$85,655	$13,180
Atlantic Area Staff	CAPT	CG Liaison to USCINCLANT (J3CG) – Norfolk, VA	$85,655	$9,606
	CAPT	CG Liaison, U.S. Naval Forces Central Command	$85,655	$9,606
	CDR	USCG/MDZ Liaison to CINCLANTFLT (N3CG) – Norfolk, VA	$73,008	$9,606
	CDR	CJTF–4 Tactical Liaison Officer	$73,008	$9,606
Pacific Area Staff	CAPT	Coast Guard Liaison to CINCPACFLT – Pearl Harbor, HI	$85,655	$13,180
	CAPT	CG Liaison to CINCPAC (J5) – Camp Smith, HI	$85,655	$13,180
	LCDR	Liaison – MARDEZ Third Pacific Fleet Afloat Staff – Honolulu, HI	$62,315	$13,180
CG Acft Rep & SupCen	SK1	Aviation Supply Division/CG Liaison – NAS Norfolk, VA	$32,905	$7,959
CG Intel Coord Ctr	QM3	Intelligence Detachment (NAVOPINCEN Suitland, MD) – Duty	$23,033	$7,959
	LT	Intelligence Detachment (NAVOPINCEN Suitland, MD) – Supv	$54,293	$9,606
CG Headquarters	CDR	Motion Picture – Television Liaison Officer – Hollywood, CA	$73,008	$9,606
	INF4	Motion Picture – Television Liaison Office – Hollywood, CA	$58,405	$9,243
	LT	Cong/Governmental Affairs Staff – Assistant House Liaison – Duty	$54,293	$9,606
	CDR	Congressional/Governmental Affairs Staff – Senate Liaison – Duty	$73,008	$9,606
	CDR	Congressional/Governmental Affairs Staff – House Liaison – Duty	$73,008	$9,606
	LT	Cong/Governmental Affairs Staff – Assistant House Liaison – Duty	$54,293	$9,606
	LT	Cong/Governmental Affairs Staff – Assistant House Liaison – Duty	$54,293	$9,606
	LCDR	Cong/Governmental Affairs Staff – Organizational Liaison – Duty	$62,315	$9,606
	CDR	CG Liaison – American Embassy Panama	$73,008	$13,180
	LCDR	NAVAIR APML Liaison – MRR Acquisition – Duty	$62,315	$9,606
	CDR	MRR Systems Manager	$73,008	$9,606
	LCDR	Admiralty Law – Detached Duty DOJ, Washington D.C.	$62,315	$9,606
	LCDR	Admiralty Law – Detached Duty DOJ, San Francisco, CA	$62,315	$9,606

CG Headquarters (continued)	LCDR	Planning and Programming Liaison (Senate)	$62,315	$9,606
	CDR	CG Liaison to Asst SecDef (Reserve Affairs) – Washington D.C.	$73,008	$9,606
	CAPT	USCG Liaison to HQ Forces Command(FORSCOM) – FT McPherson, GA	$85,655	$9,606
	CAPT	CG Liaison to US Transportation CMD (TRANSCOM) Scott AFB	$85,655	$9,606
	CAPT	Drug Law Enforcement – ONDCP/CIWG Liaison Duty	$85,655	$9,606
	CDR	OST (M–33) Telecommunications Liaison – Duty	$73,008	$9,606
	LCDR	CG Liaison – Detached Duty – White House Communications Agency	$62,315	$9,606
	CDR	C130/H3 Liaison – Air Log Ctr – Warner Robbins AFB, GA	$73,008	$9.606
	F+S4	CG Liaison Ships Parts Control Cntr (SPCC) Mechanicsburg	$58,405	$9,243
	CDR	CG Liaison to Research & Spec Pro Admin (RSPA) DOT	$73,008	$9,606
	LT	CG Liaison to World Maritime Univ – Malmo, Sweden	$54,293	$13,180
	CAPT	CG Liaison Commander, Middle East Forces Bahrain	$85,655	$13,180
	CDR	CG Liaison to Military Sealift Command	$73,008	$9,606
	CAPT	Project Support Staff – Chief (MARAD Liaison 06)	$85,655	$9,606
	CDR	CG Liaison to DOT NAVSYSTEMS/RSPA – LORAN C Project Wash., D.C.	$73,008	$9,606
	LCDR	CG Liaison to U.S. Army Corps of Engineers Washington D.C.	$62,315	$9,606
	CAPT	CG Liaison to the Joint Chiefs of Staff	$85,655	$9,606
	CDR	CG Liaison to the Federal Aviation Admin (FAA) Wash. D.C.	$73,008	$9,606
	CDR	CG Liaison to Department of State, Washington D.C.	$73,008	$9,606
	LCDR	CG Liaison – Counter Narcotics Operations Directorate (J–3)	$62,315	$9,606
	LCDR	CG Liaison to NMFS, Washington D.C.	$62,315	$9,606
	LCDR	CG Fisheries Enforcement Liaison to Dept of State, Wash. D.C.	$62,315	$9,606
	LCDR	CG Liaison to Chief of Naval Operations (OP–03), Wash. D.C.	$62,315	$9,606
	CDR	CG Liaison to Naval Sea Systems Command, Washington D.C.	$73,008	$9,606
	CDR	CG Liaison to Chief of Naval Operations (OP–06), Washington, D.C.	$73,008	$9,606
	CDR	CG Liaison to Naval Doctrine Command, Norfolk, VA	$73,008	$9,606
	LCDR	CG Liaison El Paso Intelligence Center, El Paso, TX	$62,315	$9,606
	CAPT	International & Intel Community Liaison, Chief – Detached Duty	$85,655	$9,606
	CDR	Military Adjutant to the Secretary of Transportation	$73,008	$9,606
	CDR	CG Liaison – Compen Director/OSD Mil MANPWR&PERS PLCY – Pentagon	$73,008	$9,606
	CDR	CG Liaison, Military Traffic Management Command, Falls Church, VA	$73,008	$9,606
	PERS4	CG Liaison, MTMC TOPS Project MGMT Office, FT Belvoir, VA	$58,405	$9,243
	F+S4	CG Liaison – Defense Personnel Support Center – Philadelphia, PA	$58,405	$9,243
	LT	CG Liaison to Joint Recruiting Advertising Program – Washington, D.C.	$54,293	$9,606
	HS1	Health Benefits Br – CG Liaison to CHAMPUS, Denver, CO	$32,905	$7,959
	LCDR	Health Benefits Br – CG Liaison to CHAMPUS – DET Duty – Denver, CO	$62,315	$9,606
CG Liaison Pensacola, FL	CDR	NAS Pensacola, FL – Liaison Officer	$73,008	$9,606

LIAISON BILLET CHANGES
FY 1993

Unit Name	Grade	Billet Title	Discussion
ADDED:			
14th District Far East Section	CAPT	Section Commander/Liaison U.S. Forces Japan	Billet description modified to include liaison duties at request of Japanese Maritime Safety Agency (JMSA) and Commander, US Forces Japan in Yokota (**Not an add**).
Atlantic Area Staff	CAPT	CG Liaison, U.S. Naval Forces Central Command	Officer in Charge CG Forces Middle East; Previously assigned officers 90 days TAD to support U.N. sanctions against Iraq (temp for 2 years pending U.N. action)
Pacific Area Staff	CAPT	CG Liaison to CINCPAC (J5) – Camp Smith, HI	Created at request of CINCPAC
CG Headquarters	LCDR	CG Liaison to NMFS, Washington D.C.	Provided in FY93 Budget.
	LCDR	CG Fisheries Enforcement Liaison to Dept of State, Wash. D.C.	Provided in FY93 Budget.
	CDR	CG Liaison to Naval Doctrine Command (NDC), Norfolk, VA	Created at request of NDC for joint forces operational doctrine development.
	CAPT	International & Intel Community Liaison, Chief – Detached Duty	Created at request of NDIC (temp billet for 2 years pending NDIC action to obtain FTE reimbursement).
	CDR	CG Liaison, Military Traffic Management Cmd, Falls Church, VA	OPSTAGE FY93 initiative.
	PERS4	CG Liaison, MTMC TOPS Project MGMT Office, FT Belvoir, VA	OPSTAGE FY93 initiative.
DELETED:			
CG Headquarters	CDR	CG Liaison to NAVSTAR/USAF Space CMD – Los Angeles, CA	Billet moved to CG Activities Europe.
	CDR	CG Liaison – NAVSEASYSCMD (110 WPB) – Arlington, VA	110' WPB Construction project completed.
	LCDR	CG Liaison – Counter Narcotics Operations Directorate (J-3)	Deleted as a result of liaison billet requirements review.
	CDR	CG Liaison to Research & Special Proj Admin (RSPA) – DOT	Deleted as a result of liaison billet requirements review.

RECRUITING

(309) SENATOR LAUTENBERG: How was the $1,000,000 appropriated in FY93 for Diversity Initiatives utilized? What are the results of those expenditures?

ADMIRAL KIME: While the Coast Guard appreciated the support of the Senate Committee on Appropriations which recommended $1,000,000 of the $2,009,000 requested for Diversity Initiatives in FY93, page 14 of the Conference Report (102-924) shows no funding was provided for Diversity Initiatives.

ALLEGED HOMOSEXUALS AND BISEXUALS IN THE SERVICE

(311) SENATOR LAUTENBERG: How many alleged homosexuals and bisexuals have been processed out of the Coast Guard in 1992 and to date in 1993? Please provide the sex and rank of those processed out for each year in the last five years and in 1993 to date.

ADMIRAL KIME: Personnel discharged from the Coast Guard for homosexuality[1] in the last five years are as follows:

	FY[2]	1989		1990		1991		1992		1993[3]	
PAYGRADE	SEX	M	F	M	F	M	F	M	F	M	F
E1		0	1	1	0	0	1	0	0	0	1
E2		5	1	6	3	3	1	1	1	3	1
E3		0	1	6	1	2	0	3	1	1	0
E4		0	1	5	2	1	0	3	2	1	0
E5		0	0	1	0	1	0	1	0	0	0
E6		0	1	0	0	1	0	0	1	0	0
E7		0	0	1	0	0	0	0	0	0	0
no enlisted above E7											
01		1	0	0	0	0	0	0	0	0	1
02		0	0	0	0	0	0	0	0	0	1
no officers above 02											
		1989		1990		1991		1992		1993	
TOTALS		6M	5F	20M	6F	8M	2F	8M	5F	5M	4F

Note 1: No distinction is made between discharges for homosexuality and bisexuality.

Note 2: Information for FY88 is not available. The information shown was developed during a recent thorough records review of personnel discharged for homosexuality. The review was conducted to provide Coast Guard input to the DoD Study Group on homosexuals in the service.

Note 3: FY93 numbers as of 23 JUN 1993.

(312) SENATOR LAUTENBERG: What percentage of those members processed out as a result of a CG investigation are processed out because they are believed to be homosexual?

ADMIRAL KIME: Investigations in the Coast Guard occur at many different levels and varying degrees of formality, from a purely administrative investigation at a small unit, to a criminal investigation conducted by the Investigations and Security Division at Coast Guard Headquarters. Information about these investigations is not centrally compiled and no convenient means are available to correlate information between investigations and discharges. Investigations which lead to charges of violations of UCMJ or civil laws, and which result in discharge, may not be specifically noted as such in central personnel records. Investigations which do not result in civil or UCMJ charges are not indicated in personnel records.

Some discharges are granted as a result of an individual's claim of homosexual status.

(313) SENATOR LAUTENBERG: What amount of Coast Guard investigation and administrative time has been dedicated to the investigation and processing of homosexuals in the service? What costs are associated with these efforts? Please provide base and billet information on the Coast Guard's investigation unit that handles these cases.

ADMIRAL KIME: Very little investigation and administrative time by Coast Guard investigators has been dedicated to the investigation and processing of homosexuals in the Coast Guard. During the last five years, less than two per cent of the 2,022 criminal investigations conducted were for alleged homosexual activity. So far in calendar year 1993, we have conducted one such investigation.

The Coast Guard does not have a single unit or persons dedicated solely to investigating homosexual activity. The personnel who conduct criminal investigations also conduct background investigations on Coast Guard military personnel, gather operational intelligence, and conduct protective services operations. There is no accounting system in place to separate out these costs.

MILITARY PERSONNEL TOUR LENGTHS

(314) SENATOR LAUTENBERG: Please update the tables regarding tour lengths on page 240 of last years Senate Hearing Record. Also please include similar information on Enlisted tour lengths now available from the complete analysis done at the end of FY 1992.

ADMIRAL KIME: A new accounting system was developed to track FY93 officer assignments. The new system provides both average time spent in a billet and average time spent in an area, as opposed to the single Mean Actual Tour Length (MATL) which was only one measure of geographic stability.

The FY93 information provided by this new accounting system for 2,101 officer assignments as of 15 May 1993 is as follows (all data presented in terms of years):

GRADE	AVERAGE TOUR LENGTH [1]	AVERAGE TIME SPENT IN BILLET	AVERAGE TIME SPENT IN AREA [2]
0-6	3.2	2.4	3.1
0-5	3.1	2.7	3.0
0-4	3.1	2.9	3.2
0-3	2.8	2.7	2.9
0-2/1[3]	2.1	1.9	1.9
W-4	3.2	3.2	4.1

[1] Average of all prescribed tour lengths for those billets affected by current assignment activity.

[2] Average time spent in area reflects time both in billets affected by current assignment activity and time spent in prior billets in that same geographic area.

[3] 0-2 and 0-1 assignments are combined because the CG has no 0-1 billets. All 0-1's are assigned to 0-2 billets. Similarly, all W-1, W-2 and W-3 chief warrant officers are assigned to W-4 billets since the CG has no W-1, W-2 and W-3 billets.

A new enlisted data/assignment computer system put in place in FY91 has been very successful in issuing enlisted orders, and tracking the number and costs of enlisted assignments. However, it has some shortcomings, one of which is development of tour length data by grade. We are in the process of reviewing and rewriting the software associated with this function in order to develop this information. In the interim, we are collecting alternative data to measure our effectiveness. This involves identifying how many Coast Guard members have completed their tour of duty prior to reassignment. Since December 1992, we have effected 3,097 enlisted assignments; 84.7% of those members were tour complete. We are working towards a more complete analysis by the end of FY93.

PERSONNEL

(315) SENATOR LAUTENBERG: Please update the tables found on pages 245-247 of last years hearing record. There is no need to duplicate tables here previously requested in other questions (e.g. tour lengths).

ADMIRAL KIME: The following tables present the requested updated information in the personnel area.

ENLISTED LOSS RATE BY FUNCTION OF SPECIALITY
FOR PREVIOUS EIGHT YEARS

Rating	1992	Historic 1985 to 1992	Rating	1992	Historic 1985 to 1992
AD	4.20	7.33	HS	9.38	9.31
AE	5.86	7.37	MK	9.58	12.02
AM	4.85	6.75	MST	11.92	11.01
ASM	5.37	5.47	PA	9.90	12.04
AT	5.65	8.70	QM	9.38	10.95
BM	10.06	10.61	RD	8.74	12.42
DC	6.53	11.02	RM	11.31	12.27
EM	7.78	12.86	SK	7.95	9.80
ET	9.44	13.88	SS	12.30	15.33
FT	12.11	11.25	ST	13.19	15.91
GM	12.39	12.49	TT	10.23	11.59
			YN	8.80	9.99
			TOTALS	9.06	11.15

ENLISTED LOSS RATE
AS A FUNCTION OF GRADE OR TIME IN SERVICE
FOR THE LAST EIGHT YEARS

Loss rate by pay grade

	1985	1986	1987	1988	1989	1990	1991	1992
E-2	16.6%	19.6%	13.2%	21.0%	15.6%	19.9%	18.1%	13.4%
E-3	16.2%	19.1%	15.6%	14.9%	14.4%	19.8%	19.8%	17.3%
E-4	15.5%	18.5%	16.9%	13.9%	15.1%	17.3%	15.6%	13.7%
E-5	11.6%	15.2%	11.1%	11.1%	9.8%	7.8%	9.2%	7.1%
E-6	4.6%	5.6%	5.6%	5.3%	5.3%	5.6%	4.8%	4.5%
E-7	4.1%	5.1%	5.1%	6.5%	6.6%	5.3%	7.9%	7.6%
E-8	13.6%	13.6%	9.8%	13.4%	10.5%	9.0%	10.8%	12.4%
E-9	21.1%	21.6%	15.3%	18.6%	15.6%	10.4%	14.4%	13.5%

COMPARATIVE ENLISTED LOSS RATES
U. S. COAST GUARD

1988-1992	Male	Female
Loss Rate [1]	13.9%	22.0%

Note: [1] (number of losses for an entire year divided by on-board enlisted strength)

[2] The loss rate for women officers is 5.4%

[3] The loss rate for minority officers is 2.1%

[4] The loss rate for white, male officers is 5.9%

CURRENT COMPOSITION OF THE COAST GUARD WORKFORCE

	Officer		Warrant Officer		Enlisted	
Gender						
Female	402	6.85%	22	1.37%	2,458	8.02%
Male	5,464	93.15%	1,589	98.63%	28,179	91.98%
Race						
Black	164	2.80%	31	1.95%	2,331	7.61%
Caucasian	5,398	92.02%	1,478	92.96%	25,387	82.86%
Hispanic	155	2.64%	23	1.44%	1,610	5.26%
Other Minority	149	2.54%	58	3.65%	1,309	4.27%
Total Minority	468	7.98%	112	7.04%	5,250	17.14%

OFFICER LOSS RATE AS A FUNCTION OF SPECIALTY

Specialty	Loss Rate (% within specialty)
General Administration	8.0%
Personnel	8.7%
Management	3.5%
Comptrollership	3.1%
Marine Safety	6.6%
Engineering	4.6%
Aviation	4.1%
Operations	5.0%

OFFICER LOSS RATE AS A FUNCTION OF RANK OR TIME-IN-SERVICE

[% annual losses by grade]

Rank	Retirement	Resignation	Discharge	Release from[1] Active Duty	Overall Loss Rate
02	0.0%	0.6%	1.4%	2.0%	4.2%
03	1.2%	1.3%	2.1%	0.9%	5.6%
04	5.4%	0.2%	0.0%	0.2%	5.9%
05	9.7%	0.0%	0.0%	0.0%	9.7%
06	12.1%	0.0%	0.0%	0.0%	12.1%
07-010	13.3%	0.0%	0.0%	0.0%	13.3%

Note: [1] Release from Active Duty includes Reserve Officers who separate from the Service, either voluntarily or involuntarily, upon expiration of their active duty contract.

RETIREMENT RATE OF OFFICERS AS A FUNCTION OF SPECIALTY

Specialty	Retirement Rate (% within specialty)
General Administration	5.1%
Personnel	3.2%
Management	2.6%
Comptrollership	2.6%
Marine Safety	3.8%
Engineering	2.8%
Aviation	3.0%
Operations	1.9%

RATE OF SELECTION FOR OFFICERS AT EACH PROMOTION POINT AS A FUNCTION OF SPECIALTY, ACADEMY VS. NON-ACADEMY

SPECIALTY	SELECTION RATE			
	Captain	Commander	Lieutenant Commander	Lieutenant
General Administration:	63%	78%	79%	78%
Personnel:	81%	74%	63%	79%
Management:	71%	73%	72%	70%
Comptrollership:	62%	73%	73%	86%
Merchant Marine Safety:	60%	69%	72%	81%
Engineering:	58%	68%	77%	85%
Aviation:	69%	76%	80%	89%
Operations	67%	73%	74%	84%
Academy Graduates:	67%	78%	79%	82%
Non-Academy:	60%	64%	73%	87%
AVERAGE:	65%	73%	75%	84%

The following table provides the selection rates for minority and women officers, compared with the overall average selection to various promotion points between the years 1982 and 1992.

	SELECTION RATE	1982 - 1992		
	Captain	Commander	Lieutenant Commander	Lieutenant
Minority Officers	75%[1]	76%	67%	77%
Female Officers	100%[2]	63%[3]	76%	81%
Overall Average	65%	73%	75%	84%

Notes:
[1] Only 12 minority officers considered during 1982-1992.
[2] One female officer considered during 1982-1992.
[3] Only 19 female officers considered during 1982-1992.

ANNUAL LOSSES BY SEPARATION TYPE (%)

	Retirement	Resignation	Discharge	Release from Active Duty	Overall Loss Rate
Females:	0.0%	3.2%	0.0%	2.2%	5.4%
Minorities:	1.2%	0.0%	1.7%	1.1%	2.1%
Others:	3.2%	0.5%	1.0%	1.0%	5.9%

HISTORICAL PERSONNEL DATA

(316) SENATOR LAUTENBERG: Please provide historical data up to the present time concerning:

(1) Overall percentage of women and minorities in the officer and enlisted ranks of the Coast Guard.
(2) Percentage of women and minorities recruited each year for the Coast Guard Academy, Officer Candidate School, and the enlisted ranks.
(3) Attrition rates for women, minorities, and all personnel in the Coast Guard.

ADMIRAL KIME:

(1) Table 1 depicts the overall percentage of women and minorities in the officer and enlisted ranks of the Coast Guard for the years 1988 through 1992.

(2) Table 2 shows the Percentage of women and minorities recruited each year for the Coast Guard Academy, Officer Candidate School and the enlisted ranks.

(3) Attrition rates for enlisted women, enlisted minorities and all enlisted personnel in the Coast Guard are shown in Table 3. Officer attrition rates are set forth in Table 4.

TABLE 1: OVERALL PERCENTAGE OF WOMEN AND MINORITIES IN THE OFFICER AND ENLISTED RANKS OF THE COAST GUARD 1988-1992

Commissioned Officers

	Minority Males	All Minorities	All Females
Oct 1988	4.1%	4.4%	4.4%
Oct 1989	4.5%	4.8%	4.7%
Oct 1990	5.3%	5.7%	4.8%
Oct 1991	6.3%	7.2%	5.2%
Oct 1992	7.1%	7.8%	6.7%

Enlisted Personnel

	Minority Males	All Minorities	All Females
Oct 1988	13.0%	14.9%	8.1%
Oct 1989	12.7%	14.6%	7.9%
Oct 1990	13.3%	15.2%	7.9%
Oct 1991	13.7%	16.2%	7.7%
Oct 1992	14.5%	16.6%	8.0%

TABLE 2: PERCENTAGE OF WOMEN AND MINORITIES RECRUITED EACH YEAR FOR THE COAST GUARD ACADEMY, OFFICER CANDIDATE SCHOOL AND THE ENLISTED RANKS 1988-1992

	Coast Guard Academy		Off. Cand. School**		Enlisted	
	Women	Minorities	Women	Minorities	Women	Minorites
FY 1988	16.8%	9.2%*	5.0%	10.0%	12.9%	11.9%
FY 1989	14.3%	11.8%	2.1%	8.2%	10.7%	11.6%
FY 1990	17.3%	13.1%	10.1%	12.4%	11.2%	21.7%
FY 1991	17.0%	19.6%	15.3%	26.4%	12.2%	19.8%
FY 1992	17.4%	17.1%	9.8%	22.7%	12.3%	22.4%

*Corrected number previously given for 1988; error due to transposition error.

**Corrected all years to reflect actual numbers from quarterly recruiting reports which use standard personnel accounting.

TABLE 3: RATE OF ATTRITION FOR COAST GUARD ENLISTED PERSONNEL 1988-1992

	Women	Minorities	All Personnel
FY 1988	23.7%	15.3%	14.3%
FY 1989	21.3%	12.7%	12.8%
FY 1990	22.8%	15.9%	15.0%
FY 1991	24.3%	15.0%	14.8%
FY 1992	19.7%	13.3%	12.5%

TABLE 4: RATE OF COAST GUARD OFFICER ATTRITION 1988-1992

	Women	Minorities	All Personnel
FY 1988	Statistics Not Available		
FY 1989	Statistics Not Available		
FY 1990	6.7%	4.7%	5.4%
FY 1991	4.7%	1.8%	5.9%
FY 1992	4.9%	2.9%	5.2%

REENLISTMENT AND RETENTION RATES

(317) SENATOR LAUTENBERG: What are the Coast Guard's enlistment and reenlistment rates going back for the last five years? How do these rates compare with those of the DOD services? What impact is the economy having on these rates?

ADMIRAL KIME: The following table lists the 1st and 2nd/subsequent term reenlistment rates of the Coast Guard and other Armed Services for the last five years:

First Term Reenlistment Rates (Percent)
FY 1988 - 1992

	1988	1989	1990	1991	1992
Army	48.5	49.2	49.6	45.3	33.9
Navy	54.2	59.3	57.8	60.5	56.2
Marine Corps	26.3	26.1	28.3	19.3	18.7
Air Force	54.7	68.2	51.4	59.0	58.5
Coast Guard	50.8	44.3	42.3	53.8	60.2

Second/Subsequent Term Reenlistment Rates (Percent)
FY 1988 - 1992

	1988	1989	1990	1991	1992
Army	98.0	97.1	97.3	75.3	74.9
Navy	76.0	79.0	78.7	80.8	81.5
Marine Corps	76.2	77.2	78.0	72.0	71.4
Air Force	88.2	93.3	82.0	86.8	87.5
Coast Guard	83.5	86.0	84.9	80.9	94.1

Department of Defense data derived from the DOD's Military Manpower Statistics dated September 30, 1992.

It is difficult to quantify with any degree of certainty what specific impact the economy has on our reenlistment rates. However, we believe that the economy has had a positive impact on retention. This is reflected through the first six months of FY 93 by our continuing high first term (59.3%) and subsequent (93.1%) reenlistment rates.

WORK-LIFE STUDY FUNDING REQUIREMENTS

(318) SENATOR LAUTENBERG: Please provide an itemized accounting of funds expended on Work-Life initiatives in FY 1993 and anticipated for 1994 in the format found in the Encl (6) to COMDTNOTE 7132.

ADMIRAL KIME: Two spreadsheets are attached, one for each fiscal year, which arrays the information in the format requested.

FY93 WORK-LIFE EXPENDITURES*
($000)
7/1/93

DESCRIPTION	AFC-01	AFC-08	AFC-20	AFC-30	AFC-40	AFC-56	AFC-57	TOTAL	
Civ Ombudsman Training		$29.0		$3.0				$32.0	
Civ Pers Management Tra				$15.2				$15.2	
Higher Civilian Grades				$180.0				$180.0	
Rotation for Civilians				$9.5				$9.5	
Training Lower Grades						$96.4		$96.4	Recurring
Training Lower Grades						$5.0		$5.0	
Civilian Training					$35.0	$858.0		$893.0	Recurring
Increase Civ Recognition				$6.2				$6.2	
Civ Section to Ben Guide				$80.8				$80.8	
ECAP Program				$831.0				$831.0	
Chaplain billets	$312.0		9	$53.0		$8.0	$14.0	$396.0	Recurring
Ret & Sep Counselling Tra				$233.0				$233.0	
Beneficiary Guide				$516.0				$516.0	
Annual Briefs				$15.0				$15.0	
Toll Free Lines				$53.0				$0.0	Recurring
Toll Free Lines				$4.0				$4.0	
Welcome Aboard Folders				$20.0				$20.0	
Child Care Devel. Manual				$25.0				$25.0	
Dependent Care Needs Asses				$65.0				$65.0	
Family Advocacy Instr.				$2.0				$2.0	
CG-wide training				$150.0				$150.0	
Retirement Interview & MOE		$80.0		$3.0				$0.0	Recurring
Retirement Interview & MOE				$45.0				$45.0	
POLAR IB UPALH					$125.0			$125.0	Recurring
OMBUDSMAN training						$80.0		$80.0	Recurring
OER/EPEF Revision				$26.0				$26.0	
Relocation Program				$12.0				$12.0	Recurring
Relocation Program				$107.0				$107.0	
Relocation Assistance Sys				$0.0	$400.0			$400.0	
Ship 2 POV OCONUS			225					$225.0	Recurring
Rental Cars OCONUS			19					$19.0	Recurring
2 POVs during INCONUS								$0.0	
CCS-4 Setup				$106.0				$106.0	
Redefine sponsor role				$0.0				$0.0	

Pay PCS House Hunting Trip								$0.0	
Field Staff Setups	$581.0		21	$546.0		11	$38.0	$1,197.0	Recurring
Field Staff Setups				$512.0				$512.0	
SELRES				$36.0				$36.0	
TOTAL								$6,465.1	

*Represents approximate expenditures through 5/31/93

FY94 BUDGET REQUEST FOR WORK-LIFE INITIATIVES
($000)
7/1/93

DESCRIPTION	AFC-30	AFC-56	TOTAL	FTE MIL	FTE CIV	
Civilian training		$470.0	$470.0		10	Recurring
Civ Section to Ben Guide	$13.0		$13.0			
Ret & Sep Counselling Tra	$46.0		$46.0			
Electronic Bulletin Board	$2.0		$2.0			
Welcome Aboard Folders	$5.0		$5.0			
Family Incident Database	$4.0		$4.0			
Dependent Care Needs Asses	$38.0		$38.0			Recurring
Childcare Subsidy					12	Recurring
PHS Social Worker				1		Recurring
CG-wide training		$50.0	$50.0			
Retirement Interview & MOE	$35.0		$35.0			
EAP Legal	$700.0		$700.0			Recurring
Improve Access to CHAMPUS				1		Recurring
CG Pharmacy Mail System	$100.0		$100.0	1		Recurring
Incr CG Reps @ DOD Medical				4		Recurring
Relocation Program	$14.0		$14.0			Recurring
Relocation Assistance Sys	$500.0		$500.0			Recurring
Field Staff Setups	$317.0		$317.0			
Sub-total			$2,294.0	7	22	
Funding associated with FTE for 7 Mil/22 Civ			$802.0			
TOTAL			$3,096.0			

(319) SENATOR LAUTENBERG: Have any additional tools been developed to assist in the assessment of the effectiveness of specific elements of the Work-Life initiatives? What are they? What assessments have been done to date? When will these assessments be conducted? What are the results? What will be the measures of effectiveness?

ADMIRAL KIME: Though the delivery system for Work-Life services will not be completely operating before September of this year, raw data is already being collected to track employee participation. Although this data collection is elementary, it will help identify what specific services are of most interest to employees. Dependent Resource Coordinators are conducting a dependent care needs assessment to focus program efforts where identified needs are greatest.

Over 40 initial candidate measures have been identified as potential measures of effectiveness. By the end of this fiscal year this list will have been analyzed and those measures which best reflect program performance will be identified. These objective indicators along with customer feedback surveys will form the core of an overall measurement strategy.

TIME-IN-SERVICE

(320) SENATOR LAUTENBERG: Please provide the current time-in-service objective for the officer corps, along with the actual and expected average time-in-service figures for 1993 through 1997.

ADMIRAL KIME: The current time-in-service targets are:

RANK	YEARS
Captain (CAPT)	21-22
Commander (CDR)	15-16
Lieutenant Commander (LCDR)	10-11
Lieutenant (LT)	4.5
Lieutenant (j.g.) (LTJG)	1.5

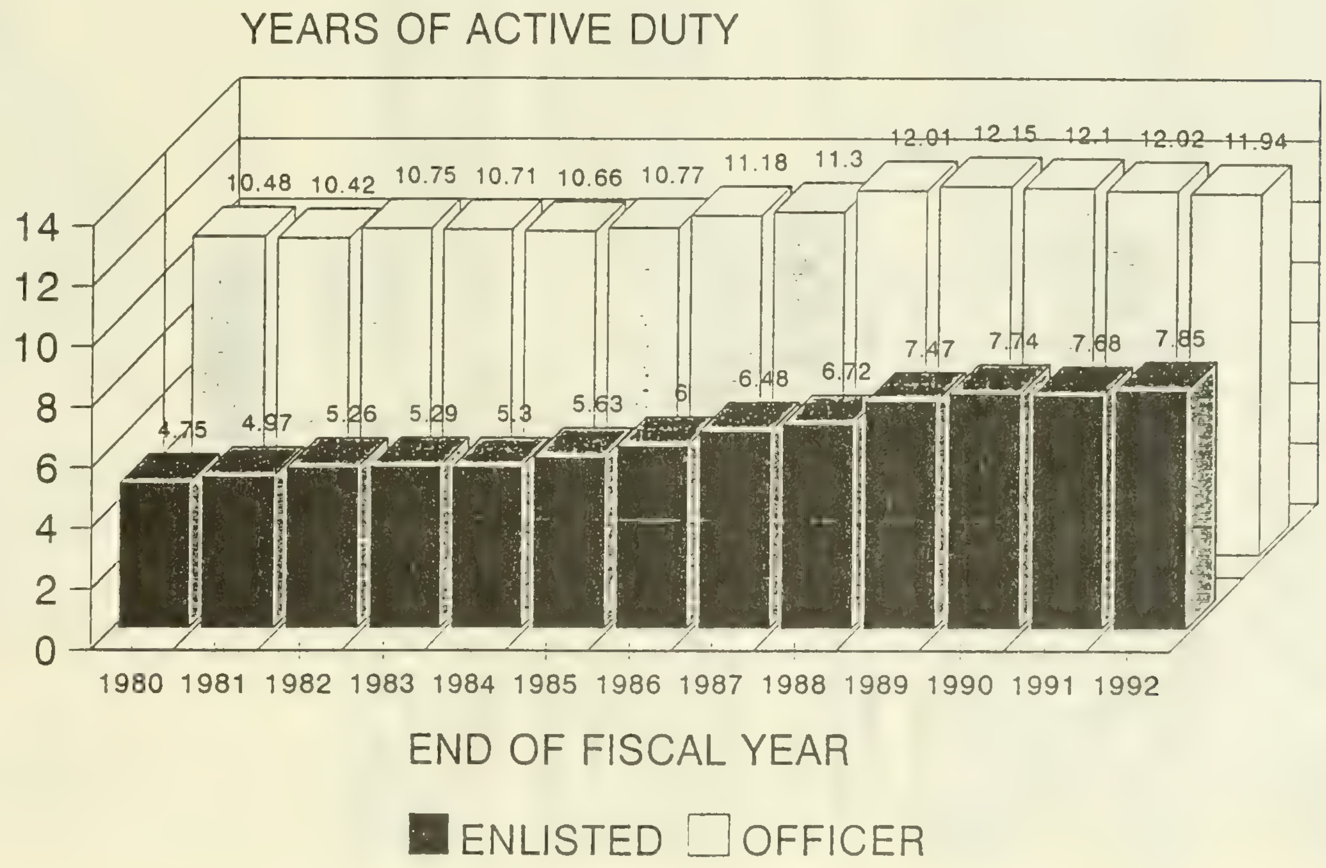
The actual and expected time-in-service figures (in years), as a function of promotion year (PY) and grade, are:

.	PY	CAPT	CDR	LCDR	LT	LTJG
(actual)	93	21.50	16.43	11.14	4.5	1.5
(estimated)	94	21.53	16.47	10.49	4.5	1.5
(estimated)	95	21.99	16.26	10.47	4.5	1.5
(estimated)	96	22.25	16.18	10.55	4.5	1.5
(estimated)	97	22.27	16.01	10.51	4.5	1.5

(321) SENATOR LAUTENBERG: Provide graphs for the enlisted and officer forces that display the distribution of time-in-service by year, for years 1980 through 1993.

ADMIRAL KIME: The following graph depicts average time-in-service for Coast Guard officer and enlisted personnel for the period 1980 through 1992. The information for 1993 will not be available until October 1993 because this information is based on personnel data at the end of each fiscal year. These numbers have been adjusted to correct for a previous error made in calculating the average time-in-sevice. The old method overestimated the average time-in-service by 0.5 years. We have corrected our methodology to provide more accurate average time-in-service data.

U.S. COAST GUARD MILITARY PERSONNEL AVERAGE TIME IN SERVICE



PERSONNEL STRENGTH

(322) SENATOR LAUTENBERG: Please provide a table showing the personnel strength for all Offices and Divisions at Coast Guard Headquarters and for Headquarter Units, broken out by officers, enlisted, and civilians, for FY 1993 and FY 1994. Please note any significant deltas from 1992 to 1993 or 1993 to 1994 that have not been articulated in the FY 1993 or FY 1994 budget requests.

ADMIRAL KIME: The attached tables list the billet strengths for all Offices and Divisions at Coast Guard Headquarters and Headquarters Units for FY 1993 and 1994. There were two significant changes from 1992 to 1993 that were not in our budget requests. First, we established the Environmental Law Division within the Office of Chief Council by moving ten billets/positions from the Claims and Litigation Division. This did not result in any increase in billets, This action was an internal reorganization designed to more effectively handle legal issues facing the Coast Guard. Second, we added seven billets to the Deputy Personnel and Training Staff to form a Diversity Staff. These billets and positions were reprogrammed from lower priority needs within the Coast Guard.

[CLERK'S NOTE.--Due to its size, the document entitled, ''Headquarters Units Billet Strength,'' does not appear in the hearing but is available for review in the subcommittee files.]

(323) SENATOR LAUTENBERG: Please provide a table showing the personnel strength for each staff office in the Atlantic and Pacific Area Offices, broken out by officers, enlisted, and civilians, for the last four fiscal years as well as for FY 1993 and FY 1994. Please also show the personnel and O&M costs associated with each area staff office. Please note any significant deltas from 1993 to 1993 or 1993 to 1994 that have not been articulated in the FY 1993 or FY 1994 budget requests.

ADMIRAL KIME: The attached tables list the billet strengths for each staff office in the Atlantic and Pacific areas for the fiscal years 1989 to 1993. There were no significant changes from 1992 to 1993 or 1993 to 1994 that were not in our budget requests. The personnel and O&M costs (all in constant FY93 dollars) are included in the tables.

ATLANTIC AREA STAFF
BILLET STRENGTH

	1994 (proj)					1993					1992				
TITLE	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL
COMMAND CADRE	5		5	1	11	5		5	1	11	4		5	1	10
ADMIN STAFF	1	1	5		7	1	1	5		7	1	1	5		7
PUBLIC AFFAIRS	1	1	4	1	7	1	1	4	1	7	1	1	4	1	7
HEARING OFFICER	7		5	4	16	7		5	4	16	7		5	4	16
OPERATIONS DIVISION	1			1	2	1			1	2	2			1	3
OPERATIONAL FORCES BR	7		3	1	11	7		3	1	11	6		2	1	9
AIRCRAFT OPS BRANCH	4		1		5	4		1		5	5		1		6
CURRENT OPS BRANCH	6		3		9	6		3		9	5		3		8
TRAINING BRANCH	1		19	1	21	1		19	1	21	2		21	1	24
OPS CENTER BRANCH	6		6		12	6		6		12	6		5		11
INTELLIGENCE DIVISION	7	3	4		14	7	3	4		14	7	3	4		14
PLANS DIVISION	10	1	3	1	15	10	1	3	1	15	10	1	3	1	15
INFO SYSTEM DIVISION	1		2		3	1		2		3	1		2		3
TELECOMMS BRANCH	3	1	26		30	3	1	26		30	2	1	26		29
OPERATIONAL COMP CEN		1			1		1			1		1			1
LORAN BRANCH	5	2	4		11	5	2	4		11	5	2	4		11
JOINT TASK FORCE 4	17		9		26	17		9		26	17		9		26
TOTALS	82	10	99	10	201	82	10	99	10	201	81	10	99	10	200
PERSONNEL COSTS	$8,104,688					$8,104,688					$8,141,000				
O&M COSTS	$1,702,183					$1,702,183					$1,689,000				

COSTS SHOWN ARE IN CONSTANT FY93 DOLLARS

ATLANTIC AREA STAFF
BILLET STRENGTH

	1991					1990					1989				
TITLE	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL
COMMAND CADRE	4		5	1	10	4		5	1	10	4		5	1	10
ADMIN STAFF	1	1	5		7	1	1	5		7	1	1	5		7
PUBLIC AFFAIRS	1	1	4	1	7	1	1	4	1	7	1	1	4	1	7
OPERATIONS DIVISION	2			1	3	3			1	4	3			1	4
OPERATIONAL FORCES BR	6		2	1	9	6		2	1	9	6		2	1	9
AIRCRAFT OPS BRANCH	5		1		6	5		1		6	5		1		6
CURRENT OPS BRANCH	5		3		8	5		3		8	5		3		8
NNBIS/OCDETF											6		2		8
TRAINING BRANCH	2		21	1	24	2		21	1	24	2		21	1	24
OPS CENTER BRANCH	6		5		11	6		5		11	6		5		11
INTELLIGENCE DIVISION	7	3	4		14	7	3	4		14	7	3	4		14
PLANS DIVISION	10	1	3	1	15	10	1	3	1	15	10	1	3	1	15
INFO SYSTEM DIVISION	1				1	1				1	1				1
AMVER BRANCH	1		2		3	1		2		3	1		2		3
TELECOMMS BRANCH	1	1	26		28	1	1	26		28	1	1	26		28
OPERATIONAL COMP CEN		1			1		1			1		1			1
LORAN BRANCH	5	1	4		10	5	1	4		10	4	1	4		9
JOINT TASK FORCE 4	17		9		26	16		10		26	16		10		26
TOTALS	74	9	94	6	183	74	9	95	6	184	79	9	97	6	191
PERSONNEL COSTS		$7,384,000					$7,411,000					$7,745,000			
O&M COSTS		$1,557,000					$1,564,000					$1,629,000			

COSTS SHOWN ARE IN CONSTANT FY93 DOLLARS

PACIFIC AREA STAFF
BILLET STRENGTH

	1994 (proj)					1993					1992				
TITLE	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL
COMMAND CADRE	5		5	3	13	5		5	3	13	4		5	3	12
ADMIN STAFF	1	1	1		3	1	1	1		3	1	1	1		3
PUBLIC AFFAIRS	1		1		2	1		1		2	1		1		2
HEARING OFFICER	3		1	2	6	3		1	2	6	3		1	2	6
OPERATIONS DIVISION	1				1	1				1	1				1
FUTURE OPS BRANCH	8		4	2	14	8		4	2	14	8		4	2	14
CURRENT OPS BRANCH	12		6		18	12		6		18	12		6		18
READINESS & TRAINING	3		5		8	3		5		8	3		5		8
INTELLIGENCE DIVISION	1				1	1				1	1				1
LAW ENFORCEMENT INTEL	2	2	5		9	2	2	5		9	3	2	5		10
INTELLIGENCE SUPPORT	1	1	5	2	9	1	1	5	2	9	1	1	5	2	9
INTEL TEAM BRANCH		1	13		14		1	13		14		1	13		14
PLANS DIVISION	10		3	2	15	10		3	2	15	10		3	2	15
INFO SYSTEMS DIVISION	2	1		1	4	2	1		1	4	1			1	2
TELECOMMS BRANCH	1	2	19		22	1	2	19		22	1	2	19		22
LORAN BRANCH	3	2	2		7	3	2	2		7	3	2	2		7
JOINT TASK FORCE 5	6		2		8	6		2		8	6		2		8
TOTALS	60	10	72	12	154	60	10	72	12	154	59	9	72	12	152
PERSONNEL COSTS	$6,258,876					$6,258,876					$6,225,000				
O&M COSTS	$1,282,782					$1,282,782					$1,264,000				

COSTS SHOWN ARE IN CONSTANT FY93 DOLLARS

PACIFIC AREA STAFF
BILLET STRENGTH

	1991					1990					1989				
TITLE	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL	CO	WO	ENL	CIV	TOTAL
COMMAND CADRE	4		5	3	12	4		5	3	12	4		5	3	12
ADMIN STAFF	1		1		2	1		1		2	1		1		2
PUBLIC AFFAIRS	1		1		2	1		2		3	1		2		3
HEARING OFFICER	3		1	1	5	3		1	1	5	3		1	1	5
OPERATIONS DIVISION	1				1	1				1	1				1
FUTURE OPS BR	7		4		11	7		4		11	7		4		11
CURRENT OPS BRANCH	12		6		18	12		6		18	12		6		18
READINESS & TRAINING	3		5		8	3		5		8	3		5		8
INTELLIGENCE DIVISION	1	1			2	1	2			3	2	1			3
LAW ENFORCEMENT INTEL	3	2	6		11	3	1	2		6	4		2		6
INTELLIGENCE SUPPORT	1	1	4	2	8		1	7	2	10		1	7	2	10
MIL INTEL BR						1	1	1		3	1	1	1		3
INTEL TEAM BRANCH		1	13		14		1	13		14		1	10		11
PLANS DIVISION	10		3	2	15	10		3	2	15	11		3	1	15
INFO SYSTEMS DIVISION	1			1	2	1			1	2	1			1	2
TELECOMMS BRANCH	1	2	19		22	1	2	19		22	1	2	19		22
LORAN BRANCH	3	2	2		7	3	1	2		6	2	1	2		5
JOINT TASK FORCE 5	6		2		8	6		1		7	6		1		7
TOTALS	58	9	72	9	148	58	9	72	9	148	60	7	69	8	144
PERSONNEL COSTS	$6,033,000					$6,033,000					$5,922,000				
O&M COSTS	$1,242,000					$1,242,000					$1,216,000				

COSTS SHOWN ARE IN CONSTANT FY93 DOLLARS

SAFETY AND ENVIRONMENTAL HEALTH (S&EH) LAWS AND REGULATIONS

(324) SENATOR LAUTENBERG: Please describe what Safety & Environmental Health (S&EH) laws and regulations are not currently being met by the Coast Guard by updating the table on page 213 of last year's record indicating the degree of compliance with applicable safety and environmental health laws and regulations.

ADMIRAL KIME: There are numerous S&EH laws and regulations that apply to the Coast Guard because of the diverse environments in which we operate. Present personnel levels will not allow for full compliance with any of the regulations. With more than 2,500 facilities situated around the country, current staff is insufficient to accomplish the required annual inspections of all work sites. Even when inspections are accomplished, our ability to ensure that the identified hazards are fully abated is hampered by personnel constraints.

Training is another area where the Coast Guard has been unable to comply fully with legislative and regulatory requirements. While we are doing an adequate job in some areas of employee training, specialized training for supervisors and managers, in their particular S&EH responsibilities, is not being accomplished to the extent required.

Increased compliance in all areas will be achieved as the remaining Safety and Environmental Health billets acquired in the FY93 budget are filled during the last quarter of the FY. The following table updates the summary of the approximate level of Coast Guard compliance with key S&EH laws and regulations.

AUTHORITY	ESTIMATED COMPLIANCE
Occupational Safety and Health (OSH) (29USC651 et.eq.)	
- OSH Programs for Federal Employees (E012196)	
- Basic Program Elements for Federal Employee OSH Programs (29CFR1960)	
a. Yearly unit inspection by qualified personnel	45%
b. Biannual inspection of high risk units	40%
c. Identification and abatement of hazards	40%
d. Employee training	45%
Compliance with OSHA Safety and Health Standards	
- General Industry (29CFR1910)	30%
- Construction (29CFR1926)	20%
- Shipyard (29CFR1915)	40%
- Short List of General Industry Standards:	
a. Walking Working Surfaces (29CFR1210.21)	30%
b. Means of Egress (29CFR1910.35)	50%
c. Electrical (29CFR1910.301)	30%
d. Hazardous Materials	40%
e. Asbestos (29CFR1910.1001)	30%
f. Lead (29CFR1910.1025)	30%
g. Hazardous Waste Operations (29CFR1910.120) (includes oil spills)	10%
h. Blood Borne Pathogens (29CFR1910.1030)	10%
Clean Water Act (33USC1251)	
a. Design review for waste water treatment facilities	5%
Safe Drinking Water Act (42USC300)	
a. Oversight testing requirements for CG-owned water treatment and distribution systems	20%
b. Design review for water treatment and distributions systems (shore and vessel)	5%
Food and Drug Administration (21USC301)	
a. Food service sanitation training	10%
b. Food service establishment design review	10%
c. Food service sanitation inspections	45%
Federal Insecticide, Fungicide and Rodenticide Act (7USC136)	
a. Vector control program oversight	30%
Medical Wastes Tracking Act (PL100-582)	
a. Program oversight	30%

DELINQUENT CHILD SUPPORT PAYMENTS

(325) SENATOR LAUTENBERG: A recent cross reference of social security numbers of fathers delinquent in their payment of child support payments with social security numbers of military members revealed a match of 67,000 numbers representing delinquent payments in excess of $54M. Does the Coast Guard have access to information reflecting a member's failure to pay required child support or alimony payments? If so, how many delinquent members exist and what action does the service take to ensure the member satisfies their financial obligations to dependents? If not, why not?

ADMIRAL KIME: The Coast Guard (CG) does not have direct access to information concerning members who are delinquent in paying child support. There is, however, a system in place that identifies delinquent parents serving in the CG and a process that results in not only the identification of such parents but in the proper relief for their dependents.

The Federal Parent Locator Service (FPLS) obtains information concerning Coast Guard members who are delinquent through a weekly computer match with the Defense Manpower Data Center (DMDC). DMDC data includes all Coast Guard members. Information (address and service) on members with delinquent child support payments is forwarded by the FPLS to the appropriate state for action. The FPLS forwards delinquent parent information to the states because the services do not have the legal authority to garnish members' wages without a court order directing them to do so.

We do know some of our members are delinquent in the payment of child or spousal support. These members are known as a result of: (1) garnishment orders served on our Pay and Personnel Center (PPC); (2) support enforcement subpoenas or interrogatories served on PPC and local units; and (3) written or telephonic complaints of non-support received from dependents by PPC and local commands.

When valid garnishment orders are received by PPC, they are implemented in accordance with 42 U.S.C. 659 and are also forwarded to the member's Commanding Officer for counseling action. At this time, PPC is deducting support from 519 active/reserve members and 168 retired members for child/spousal support pursuant to 42 U.S.C. 659.

When valid enforcement subpoenas or interrogatories are received by PPC, timely and full responses are provided in accordance with 42 U.S.C. 661(b)(3)(A). During the first quarter of CY 1993, PPC responded to 35 of these requests by state courts or agencies responsible for support enforcement.

When written or telephonic complaints of non-support are received from dependents, the complaints are forwarded to the member's Commanding Officer for mandatory counseling in accordance with written guidelines in Chapter 8 of the Coast Guard Personnel Manual. Only four such complaints were received and forwarded by PPC during the period from 1 July 1992 to 23 June 1993.

The above processes mirror those used by the DOD components, who have the same legal restrictions as we do, and take actions similar to ours when notified members are delinquent in paying child support.

CUT IN RESERVE STRENGTH

(326) SENATOR LAUTENBERG: You are proposing to reduce the number of selected Reserves from 10,500 to 8,000 -- a reduction of 23 percent. Based on your assessment of your Reserve needs, is 8,000 as low as you plan to go in future years? Might you be looking to reduce the number of Reserves even further in FY 1995 or later?

ADMIRAL KIME: A Coast Guard preliminary assessment indicates that a Selected Reserve of 8,000 is appropriate to fulfill all defense and defense-related mobilization requirements derived from a current updated Department of Defense Contingency Planning scenario. While this preliminary assessment is being validated through the full Coast Guard planning process, a significant change in requirements is not expected.

(327) SENATOR LAUTENBERG: How will the mission focus of this smaller Reserve force differ from that of the current Reserve force?

ADMIRAL KIME: The mission and training focus of the Coast Guard Reserve has not changed. The mission focus for a Selected Reserve of 8,000 will continue to be to train for defense and defense-related mobilization requirements. The primary defense contingency mission of the Coast Guard is to protect strategic ports. In the updated Department of Defense planning criteria, the number of strategic ports decreased from 48 to 16. Based on preliminary analysis of current DOD contingency planning criteria, we have reduced our mobilization strength estimate to 8,000 selected reservists, but have not changed the training focus of the Coast Guard Reserve.

(328) SENATOR LAUTENBERG: What criteria will be used to determine which reservists will be involuntarily separated from the service as the reserve force draws down from 10,500 to 8,000 selected ready reservists?

ADMIRAL KIME: Normal attrition combined with significantly curtailed new accessions are expected to draw the force down by about 1000 reservists. The remaining 1,500 reduction will require involuntary transfers out of the Selected Reserve. This will be accomplished through a screening process based primarily on service need. The specific criteria are still being developed, but we expect to screen out poor performers, those personnel with skills not needed in the new mobilization requirements, and those personnel not meeting modified high-year tenure criteria. To ensure fair and equitable treatment of all members, these actions are expected to be undertaken through a central board action.

(329) SENATOR LAUTENBERG: Will rate and experience indicator be primary criteria along with performance evaluation? Due to the Coast Guard's increasing roles in marine environmental protection, will an effort be made to retain reservists with skills in this field where performance evaluation is not otherwise an issue?

ADMIRAL KIME: The specific criteria to use in drawing down the Selected Reserve force are still being developed. Performance, rate, and experience indicator will be among the factors considered in retaining a force that can fulfill the new Coast Guard defense and defense-related mobilization requirements. Within the smaller force about 350 will be identified for marine environmental response. Although the primary focus of Reserve training and the justification of this smaller size force is on the Coast Guard's defense and defense-related mobilization requirement, the Reserve force will still be capable of responding to both defense and non-defense contingencies, including marine environmental protection contingencies.

(330) SENATOR LAUTENBERG: Were your areas, districts and field offices consulted in the process resulting in your decision to reduce the number of Reserves to 8,000? If so, when and what was their input? If not, why not?

ADMIRAL KIME: The areas, districts and port level commands were involved in the process that resulted in determining preliminary mobilization requirements. This was the basis for the decision on the reduced size of the Selected Reserve. Force requirements from area, district and port-level operation plans (OPLANS) were an entering argument for the study that identified the defense-related requirements. Area, district and port-level planners, as well as headquarters program managers were consulted as service planning criteria were adapted to new Joint Chiefs of Staff, Commanders in Chief, Navy and Coast Guard planning scenarios. Field input from Desert Shield/Storm experience was also considered. Personnel requirements documented in Coast Guard OPLANS were analyzed and amended by consistent application of the revised planning criteria. This process started in early 1991 and continues. Preliminary

Reserve force requirements derived from this analysis were provided directly to the senior Area Commanders in early 1993. Some realignments with regard to mobilization billet assignments were recommended and are being made. More realignments are expected as new Coast Guard OPLANS are written through the normal planning cycle.

(331) SENATOR LAUTENBERG: Will 8,000 selected ready reservists leave adequate numbers and diversification of ratings to allow the field offices to fully activate their contingency plans? Will this reduced strength limit the number of contingency plans that will be able to simultaneously be activated?

ADMIRAL KIME: There will be adequate numbers and diversification of ratings remaining in the Coast Guard Reserve to allow field offices to activate their contingency plans. Although the sizing of the Reserve is based on fulfilling Coast Guard defense and defense-related mobilization requirements, reservists will be available to augment the Coast Guard for support of all mission requirements when not otherwise mobilized for defense contingencies. The decision to seek funding support for 8,000 Reservists in FY 1994 is based on accepting the significantly reduced risk that full mobilization for defense contingencies and mobilization for non-defense natural and manmade disasters and other Coast Guard contingencies would happen simultaneously.

(332) SENATOR LAUTENBERG: Based on your internal study of the SELRES initiated in 1992, what do you propose as appropriate reserve personnel levels for the next five years? How do you intend to use these personnel, how has the billet structure been changed? What plan do you have for the future use of reserves with regard to specific augmentation and mobilization duties?

ADMIRAL KIME: Based on our preliminary assessment of current defense and defense-related mobilization requirements derived from an updated Department of Defense planning scenario, a Selected Reserve of 8,000 personnel over the next five years appears to be appropriate. These personnel will train to fulfill defense and defense-related mobilization assignments. The overall billet structure of the Selected Reserve should not change, except for reductions in response to a smaller defense mobilization requirement. To the extent that the training capacity exists, reservists will be assigned to train at their Coast Guard active unit mobilization sites. Once that training capacity is filled, reservists will be assigned to train at other active units having the capacity to train reservists for mobilization assignments. The majority of reservists will be integrated into the active unit at which they train. In these locations, there may no longer be a need for a separate reserve unit structure. The overall reduction in both the number of reserve units and corresponding reserve unit administration will increase the amount of augmentation training that can be performed. The overall quality of training and Reserve readiness is expected to improve. Coast Guard reservists are available to mobilize, both on a voluntary and involuntary basis, for both defense and non-defense Coast Guard contingencies. Reservists continue to augment the active force in support of all Coast Guard mission areas, as necessary.

RESERVE TRAINING

(333) SENATOR LAUTENBERG: What are the results of the pilot program underway in the 11th District that assigns a small number of regulars to assist with reserve administrative matters? Will it be adopted for wider utilization throughout the Coast Guard?

ADMIRAL KIME: The Reserve Management Support Activity (RMSA) pilot project in the Eleventh Coast Guard District has been very successful. The RMSA concept was developed to accomplish the two goals of alleviating/reducing the Reserve group and unit administrative burden, and increasing Reserve augmentation training at active service commands. Survey results indicate Reserve unit administration time at pilot project units has been reduced from 39 percent to 7.5 percent. Customer satisfaction (both reserve and active component) is at 99 percent. The one reserve group in the pilot project (about 320 reservists) increased its augmentation training at active units by 10,000 hours in one year. Plans are being developed to expand this concept to other areas in the Coast Guard.

RESERVE PARTICIPATION IN CONTINGENCIES

(334) SENATOR LAUTENBERG: Please update the table found on page 378 of last year's record indicating the number and percentage of your selected reserves that were called up to participate in contingencies or other noteworthy incidents that you deem appropriate.

ADMIRAL KIME: [The information follows:]

COAST GUARD RESERVE PARTICIPATION IN SIGNIFICANT OPERATIONS, 1990-1992 (Number Employed and Total Workdays)

EVENT	1990		1991		1992	
	Num Emp	Tot Days	Num Emp	Tot Days	Num Emp	Tot Days
MEGA BORG spill	9	200				
CIBRO SAVANNAH spill	35	150				
Oil spill - NJ	10	40				
Oil Spill - Hunt. Bch.	50	860				
JUPITER fire	18	50				
Bridge Collapse	3	3				
Flooding - WV	28	280				
Goodwill Games	54	3883				
EXXON VALDEZ spill	37	8186	45	2140		
Desert Storm	676	81713	973	117587		
Summer Stock OPS	50	7300	50	7300	50	7300
Shuttle Support	36	1800	36	1800	36	1800
Holiday OPS Surges	90	90	90	90	90	90
Waterfront Festivals	90	270	90	270	90	270
Regatta - PA	40	190	40	190	40	190
Water Festivals		200		200		200
MPS Loadouts	27	1215	27	1215	27	1215
Bay Area Fires			30	60		
Flooding - TX			18	183		
Augment POINT BROWER OPS			10	100		
D17 Boating Safety			10	100		
PINCH HIT-Sta Takeover-FL					65	650
Train Wreck - Chem spill					2	4
Tanker Grounding - PA					4	4
Crash V22 OSPREY					4	8
Hurricane ANDREW					193	7200
Pacific Typhoons					49	298
Nor'easter - Storm Damage					10	40
Haitian OPS					15	150
SEAFAIR Festival - WA					35	120
CGC EAGLE - Olympics					15	45
Americas' Cup Races					300	3800
Los Barcos Festival					19	190
Columbus Day Events					950	12402
DOD Exercise-Gulf					20	250
SUMMARY						
Domestic Emerg	190	9769	45	2140	10	16
Natural Disaster	0	0	48	243	252	7538
Extraordinary OPS	54	3883	20	200	1334	16707
Recurring Surge	306	9850	306	9850	371	10500
Military OPS	703	82928	1000	118802	47	1465
TOTAL CONSUMPTION	1253	106430	1419	131235	2014	36226
Percent of Reserve Strength Employed	10.3%		12.1%		18.0%	

ACQUISITION, CONSTRUCTION AND IMPROVEMENTS

COAST GUARD COST ESTIMATES OF NEW SHIPS

(335) SENATOR LAUTENBERG: You recently concluded negotiations for the lead ship contract for your seagoing buoy tender project. We were pleased to see that the lead ship came in $13 million dollars under budget, and the total cost of the program is now estimated to be reduced by hundreds of millions of dollars. Do you have any concern that the winning shipyard underestimated the cost of this ship in order to win the contract? Will we be paying cost overruns for this contract in years to come?

ADMIRAL KIME: The Coast Guard is always concerned about whether a contractor can deliver a product for the budgeted cost. The cost proposals of all major acquisitions come under intense scrutiny during the source selection process. The Source Evaluation Board assigns a Cost Price Team to evaluate the "reasonableness" of each vendor's offer, which is then used in the final selection process. The Coast Guard believes that the WLB contractor realistically presented the costs of production in their contract proposal. We have in place for all major acquisitions, and this contract requires, a formal cost/schedule tracking system to monitor the performance of the contractor as the work proceeds. This is intended to provide early warning of any variances in contract cost and/or scheduled delivery.

(336) SENATOR LAUTENBERG: Does the considerable difference between your cost estimate and the actual contract price indicate that you are perhaps overestimating the cost of new Coast Guard vessels in other programs, such as the motor lifeboat or coastal buoy tender program?

ADMIRAL KIME: No, the difference between the WLB contract price and the government estimate has no relation to the Coast Guard's estimate of other projects, in particular, the Coastal Buoy Tender (WLM) or Motor Lifeboat (MLB). Each project estimate is based on the best information available and necessarily involves dozens of assumptions which may vary between estimators. Coast Guard estimates are based on nominal designs that meet our requirements. These nominal designs may or may not be equivalent to the designs submitted by the vendors. Shipyards provide cost proposals based on specific designs that may be different than the Coast Guard's nominal design but still meets all requirements. A critical aspect of the government estimate is to permit the government to determine the "realism" of an offeror's estimate and whether the vendor understands the government's requirements. It is not expected to calculate a precise cost.

AC&I UNOBLIGATED BALANCES

(337) SENATOR LAUTENBERG: Please prepare a table by major AC&I project comparing the anticipated unobligated balance for each project at the end of FY 1992 as articulated in your April 1992 quarterly report opposite the actual end-of-year unobligated balance for each project. Please explain any significant deltas between the anticipated unobligated balance and actual unobligated balance.

ADMIRAL KIME: The requested information is as follows:

($000)

Project	FY92 Anticipated Unobligated Balance	FY92 Actual Unobligated Balance
WLB	66,733	66,861
WLM	2,000	2,993
BUSL	268	4,458 [1]
FRAM	1,000	7,533 [2]

AEW	883	691
CIWS	70	76
HH-60J	4,500	10,600 [3]
TALON	2,250	3,400
MLB	0	665
Icebreaker	200	5,171 [4]
Island Class	90	94
Heritage Class	372	91
Coastal Patrol Boat	800	1,058
MMA	0	1,981 [5]

[1] BUSL pre-production contract was awarded later than anticipated, $4 million was obligated 1st Qtr FY93 vice 4th Qtr FY92 as planned.

[2] $6 million identified in FY92 for LRCCA reprogramming which did not occur. From the $6.0 million, $4.5 million was later reprogrammed by Congress, and $1.5 million was reprogrammed for MCAM.

[3] Anticipated a $6 million joint DOD purchase would be executed for HH-60J peculiar initial provisioning spares. Procurement was not executed. Funding now being carried over until FY94 funding is available.

[4] Estimate developed prior to cancellation of original contract award. Obligated $3.5 million in 1st Qtr FY93. Remaining $1.7 million to be carried over for FY93 administrative costs, and to be combined with FY94 funding for admin costs, spares and training expenses.

[5] Execution of MMA funds reduced during 4th Qtr FY92 to ensure sufficient funds available in FY93 for settlement of Colonna Shipyard Design Deliverables and for 210' WMEC B-Class MMA cost and schedule re-baseline review.

AC&I BILLETS AND FTE'S

(338) SENATOR LAUTENBERG: Please provide a table detailing the number of billets as well as full-time equivalents by rank for each of the Coast Guard's AC&I projects for FY 1993 and FY 1994. Also supply a break-out of FTPs and FTEs by location.

ADMIRAL KIME: [The answer follows:]

FY 1993 AC&I FTP/FTE

FTP Figures are End of Year FY93 Estimates   FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
180 WLB SLEP	CG HEADQUARTERS	1 /	1	1 /	1	0 /	0	0 /	0	2	2
	COAST GUARD YARD	0 /	0.25	0 /	1	0 /	0	0 /	0	0	1.25
	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	0 /	0	2 /	2	2	2
	TOTALS	1 /	1.25	1 /	2	0 /	0	2 /	2	4	5.25
210 MMA PROJECT	CG HEADQUARTERS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	1 /	1	1 /	1	2	2
	CG SUPCEN CURTIS BAY	0 /	0	3 /	3	9 /	9	3 /	3	15	15
	COAST GUARD YARD	2 /	2	2 /	2	0 /	0	0 /	0	4	4
	TOTALS	4 /	4	6 /	6	10 /	10	4 /	4	24	24
378 FRAM PROJECT	13TH DISTRICT STAFF	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG RIO BATH	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG RIO SEATTLE	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
378 SCCS	CG EECEN WILDWOOD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
AIRCRAFT MAINTENANCE AND MANAGEMENT INFO SYS (AMMIS)	CG ACFT REP & SUPCEN	2 /	2	0 /	0	0 /	0	0 /	0	2	2
	CG HEADQUARTERS	0 /	0.75	0 /	0	0 /	0	0 /	0	0	0.75
	TOTALS	2 /	2.75	0 /	0	0 /	0	0 /	0	2	2.75
AN/SPS-64	CG EECEN WILDWOOD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD PAC	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
APPL SFTWR	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
BUOY BOAT PROJECT (BUSL)	CG HEADQUARTERS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	2 /	0.5	0 /	0	3	1.5
	PRO/BELLINGHAM, WA	2 /	2	2 /	1.25	3 /	3	0 /	0	7	6.25
	TOTALS	4 /	4	4 /	3.25	5 /	3.5	0 /	0	13	10.75
C-130 AEW PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	GC AIRSTA CLEARWATER	0 /	0	0 /	0.75	0 /	0.75	0 /	0	0	1.5
	TOTALS	0 /	0	0 /	0.75	0 /	0.75	0 /	0	0	1.5

FTP Figures are End of Year FY93 Estimates   FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
CENPAC CLOSURE PROJECT	CG HEADQUARTERS	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
	TOTALS	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
CIWS/HARPOON PROJECT	CG HEADQUARTERS	1 /	1.25	1 /	1	0 /	0	0 /	0	2	2.25
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD PAC	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	1 /	1.25	1 /	1	0 /	0	0 /	0	2	2.25
COMSTA AUTOMATION	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	TOTALS	0 /	0	0 /	0	0 /	0	1 /	1	1	1
CONFIGURATION MANAGEMENT	CG HEADQUARTERS	2 /	2	0 /	0	1 /	1	1 /	1	4	4
	CG SUPCEN CURTIS BAY	2 /	2	1 /	1	2 /	2	0 /	0	5	5
	TOTALS	4 /	4	1 /	1	3 /	3	1 /	1	9	9
COCKPIT VOICE RECORDER/ FLIGHT DATA RECORDER	CG HEADQUARTERS	0 /	0	1 /	1	0 /	0	0 /	0	1	1
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	TOTALS	0 /	0	1 /	1	0 /	0	1 /	1	2	2
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	1 /	0.25	1	0.25
	CEU JUNEAU	0 /	0	0 /	0	0 /	0	1 /	0.25	1	0.25
	OMSCEN, Va	3 /	3	0 /	0	0 /	0	0 /	0	3	3
	EECEN, NJ	3 /	3	1 /	0.25	7 /	4	0 /	0	11	7.25
	TRACEN, NJ	0 /	0	0 /	0	0 /	0	0 /	0.75	0	0.75
	TOTALS	6 /	6	1 /	0.25	7 /	4	2 /	1.25	16	11.5
DOT STUDY GROUP	CG HEADQUARTERS	0 /	0.75	0 /	0	0 /	0	0 /	0	0	0.75
	TOTALS	0 /	0.75	0 /	0	0 /	0	0 /	0	0	0.75
FLAR INSTALLATION PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CG ACFT REP & SUPCEN	1 /	1	1 /	1	6 /	6	4 /	4	12	12
	TOTALS	2 /	2	1 /	1	6 /	6	4 /	4	13	13
FT4A GAS TURBINE PROJECT	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
GLOBAL MARITIME DISTRESS & SAFETY SYSTEM	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0.5	0	0.5
	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	1 /	0.5	1	0.5
	TOTALS	0 /	0	0 /	0	0 /	0	1 /	1	1	1
GPS (Aviation)	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	1 /	1	1 /	1	2	2
	TOTALS	1 /	1	0 /	0	1 /	1	1 /	1	3	3

FTP Figures are End of Year FY93 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
HH60 MRR PROJECT	CG HEADQUARTERS	6 /	7	0 /	0.25	1 /	1	0 /	0	7	8.25
	CG ACFT REP & SUPCEN	0 /	0.25	1 /	1	1 /	3.25	3 /	3	5	7.5
	TOTALS	6 /	7.25	1 /	1.25	2 /	4.25	3 /	3	12	15.75
ICEBREAKER RELIABILITY IMPROVEMENT PROJECT (RIP)	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CG NAVAL ENG SUP SEATTLE	2 /	2	0 /	0	4 /	4	0 /	0	6	6
	MAINT & LOG CMD PAC	2 /	2	1 /	1	0 /	0	8 /	8	11	11
	TOTALS	5 /	5	1 /	1	4 /	4	8 /	8	18	18
ICEBREAKER REPLACEMENT PROJECT (PIR)	CG HEADQUARTERS	7 /	8.25	0 /	0	1 /	1	2 /	1.5	10	10.75
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	0 /	0	1 /	0.25	0 /	0	0 /	0	1	0.25
	PRO/TBD	6 /	5.5	3 /	3	8 /	4.25	0 /	0.5	17	13.25
	TOTALS	13 /	13.75	4 /	3.25	9 /	5.25	2 /	2	28	24.25
IRM (DISTRIBUTED COMPUTING)	CG EECEN WILDWOOD	0 /	0	0 /	0	0 /	0	0 /	0.75	0	0.75
	INFO SYSTEMS CENTER	0 /	0	0 /	0.5	0 /	0	0 /	0	0	0.5
	TOTALS	0 /	0	0 /	0.5	0 /	0	0 /	0.75	0	1.25
LAW ENFORCEMENT INFORMATION SYSTEM PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	2 /	2	3	3
	TOTALS	1 /	1	0 /	0	0 /	0	2 /	2	3	3
MACKINAW PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD LANT	0 /	0	2 /	2	0 /	0	0 /	0	2	2
	TOTALS	0 /	0	2 /	2	0 /	0	0 /	0	2	2
MARINE INFORMATION FOR SAFETY & LAW ENFORCEMENT (MISLE)	CG HEADQUARTERS	3 /	3	0 /	0	0 /	0	2 /	2	5	5
	TOTALS	3 /	3	0 /	0	0 /	0	2 /	2	5	5
MEDICAL MGMT INFO SYS	CG HEADQUARTERS	1 /	0.75	0 /	0	0 /	0	0 /	0	1	0.75
	TOTALS	1 /	0.75	0 /	0	0 /	0	0 /	0	1	0.75
MIGRATION TO NEXT STANDARD WORKSTATION	CG HEADQUARTERS	3 /	0.75	0 /	0	0 /	0	1 /	0.25	4	1
	CG EECEN	1 /	0.25	0 /	0	0 /	0	1 /	0.25	2	0.5
	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOC CMD PAC	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	OSC, VA	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	4 /	1	0 /	0	0 /	0	2 /	0.5	6	1.5
MOTOR LIFEBOAT PROJECT (MLB)	CG HEADQUARTERS	5 /	3.75	2 /	1	0 /	0	2 /	1.5	9	6.25
	CG MLB PRO	0 /	1	0 /	2	0 /	2	0 /	0	0	5
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	1 /	0.25	0 /	0	1	0.25
	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	4 /	2.5	0 /	0	4	2.5
	NAT MOTOR LFBOAT SCH	0 /	0	0 /	0	0 /	4	0 /	0	0	4
	TOTALS	5 /	4.75	2 /	3	5 /	8.75	2 /	1.5	14	18

FTP Figures are End of Year FY93 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO FTP	CO FTE	CWO FTP	CWO FTE	ENL FTP	ENL FTE	CIV FTP	CIV FTE	TOTALS FTP	TOTALS FTE
NORPAC LORAN PROJECT	CG EECEN	1 /	1	0 /	0	0 /	0	2 /	2	3	3
	CG PAC AREA	0 /	0	0 /	1	0 /	0	0 /	0	0	1
	TOTALS	1 /	1	0 /	1	0 /	0	2 /	2	3	4
PATROL BOAT PROJECT (WPB) ISLAND & HERITAGE CLASSES	CG HEADQUARTERS	8 /	7	0 /	0.5	0 /	0	3 /	3.75	11	11.25
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	0 /	0.25	0 /	0	0	0.25
	COAST GUARD YARD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	RIO LOCKPORT	0 /	0.75	0 /	0	0 /	1.5	0 /	0	0	2.25
	PRO(TBD)	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	8 /	7.75	0 /	0.5	0 /	1.75	3 /	3.75	11	13.75
POLAR CLASS (CONSOLE)	MAINT & LOG CMD PAC	0 /	0	1 /	1	0 /	0	0 /	0	1	1
	NAVENGSUPRT SEATTLE	1 /	1	1 /	1	1 /	1	0 /	0	3	3
	TOTALS	1 /	1	2 /	2	1 /	1	0 /	0	4	4
SYSTEM TO AUTOMATE & INTEGRATE LOGISTICS	CG HEADQUARTERS	4 /	4	1 /	0.25	0 /	0	2 /	1.5	7	5.75
	TOTALS	4 /	4	1 /	0.25	0 /	0	2 /	1.5	7	5.75
SECURE COMMUNICATIONS	CG HEADQUARTERS	0 /	0	0 /	0.75	0 /	0	0 /	0	0	0.75
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	1.5	0 /	3	0	4.5
	TOTALS	0 /	0	0 /	0.75	0 /	1.5	0 /	3	0	5.25
SELECTED MAJOR ACQUISITIONS	CG HEADQUARTERS	1 /	1.25	1 /	1	0 /	0	2 /	2	4	4.25
	TOTALS	1 /	1.25	1 /	1	0 /	0	2 /	2	4	4.25
SHORE CONSTRUCTION PROGRAM	CG FD & CC ATLANTIC	13 /	13	0 /	0	3 /	3	52 /	52	68	68
	CG FD & CC PACIFIC	10 /	10	0 /	0	1 /	1	30 /	30	41	41
	CEUs NY, Prov, Clev, Miam	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	CG HEADQUARTERS	6 /	6	0 /	0	0 /	0	21 /	21	27	27
	MLCLANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MLCPAC	0 /	0	0 /	0	0 /	0	3 /	3	3	3
	TOTALS	29 /	29	0 /	0	4 /	4	107 /	107	140	140
MINI COMPUTER/STANDARD WORKSTATION RECOMPETE	CG HEADQUARTERS	2 /	2	0 /	0	0 /	0	3 /	3	5	5
	EECEN, NJ	1 /	1	0 /	0	0 /	0	1 /	1	2	2
	ISC	0 /	0	0 /	0	0 /	0	2 /	2	2	2
	TOTALS	3 /	3	0 /	0	0 /	0	6 /	6	9	9
TALON PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	6 /	6	6	6
	TOTALS	0 /	0	0 /	0	0 /	0	6 /	6	6	6
TCAS PROJECT	CG HEADQUARTERS	2 /	2	0 /	0	0 /	0	0 /	0	2	2
	TOTALS	2 /	2	0 /	0	0 /	0	0 /	0	2	2

FTP Figures are End of Year FY93 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
VESSEL TRAFFIC SYSTEM (VTS)	CG HEADQUARTERS	5 /	3.75	0 /	0	0 /	0	4 /	4	9	7.75
	EECEN	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
	CEU MIAMI	0 /	0	0 /	0	0 /	0	1 /	0.5	1	0.5
	CEU OAKLAND	0 /	0	0 /	0	0 /	0	1 /	0.75	1	0.75
	MLCLANT	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
	TOTALS	7 /	4.25	0 /	0	0 /	0	6 /	5.25	13	9.5
VHF-FM PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	ISC	1 /	1	1 /	1	0 /	0	0 /	0	2	2
	TOTALS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
SEAGOING BUOY TENDER (WLB) PROJECT(S)	CG HEADQUARTERS	14 /	12.5	1 /	1	0 /	0	4 /	4.25	19	17.75
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	1 /	0.25	0 /	0	2	1.25
	PRO (WLB)	14 /	12.5	6 /	5.25	17 /	10.25	0 /	0	37	28
	TOTALS	28 /	25	8 /	7.25	18 /	10.5	4 /	4.25	58	47
COASTAL BUOY TENDER (WLM) PROJECT(S)	CG HEADQUARTERS	4 /	4	1 /	1	0 /	0	2 /	2	7	7
	CG SUPCEN CURTIS BAY	0 /	0	1 /	0.25	1 /	0.25	0 /	0	2	0.5
	R&D CENTER	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	PRO (WLM)	13 /	7	6 /	1.5	18 /	4.5	0 /	0	37	13
	TOTALS	17 /	11	8 /	2.75	19 /	4.75	2 /	2	46	20.5
CORE PROGRAM STAFF	CG HEADQUARTERS	25 /	27	4 /	4.5	7 /	6.5	94 /	90.25	130	128.25
	CG SUPCEN BROOKLYN	1 /	1	1 /	1	3 /	3	10 /	10	15	15
	CG SUPCEN CURTIS BAY	1 /	1	1 /	1	0 /	0	17 /	17	19	19
	AR&SC	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	INFO SYSTEMS CENTER	2 /	2	0 /	0	0 /	0	0 /	0	2	2
	TOTALS	30 /	32	6 /	6.5	10 /	9.5	121 /	117.25	167	165.25
	SUBTOTALS	197 /	187	53 /	50.25	104 /	83.5	299 /	296	653	616.75
	BUDGET TOTALS	MILITARY 354/322						CIVILIAN 299/275*			
	GRAND TOTAL	653/597									

*Spreadsheet totals assumed 0% lapse rate. Budget request (FTE and funds) provides for an 8% lapse rate on civilian positions, which has been validated by semi-annual civilian position vacancy reports. The extraordinary vacancy rate on AC&I civilian positions is due to the difficulty in attracting and retaining civilians for temporary AC&I project positions.

FY 1994 AC&I FTP/FTE

FTP Figures are End of Year FY94 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
180 WLB SLEP	CG HEADQUARTERS	0 /	0.25	0 /	0.25	0 /	0	0 /	0	0	0.5
	COAST GUARD YARD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	0 /	0	0 /	1	0	1
	TOTALS	0 /	0.25	0 /	0.25	0 /	0	0 /	1	0	1.5
210 MMA PROJECT	CG HEADQUARTERS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	1 /	1	1 /	1	2	2
	CG SUPCEN CURTIS BAY	0 /	0	2 /	2.5	9 /	9	1 /	2.5	12	14
	COAST GUARD YARD	2 /	2	2 /	2	0 /	0	0 /	0	4	4
	TOTALS	4 /	4	5 /	5.5	10 /	10	2 /	3.5	21	23
378 FRAM PROJECT	13TH DISTRICT STAFF	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG RIO BATH	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG RIO SEATTLE	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
378 SCCS	CG EECEN WILDWOOD	2 /	0.5	0 /	0	1 /	0.25	0 /	0	3	0.75
	TOTALS	2 /	0.5	0 /	0	1 /	0.25	0 /	0	3	0.75
AIRCRAFT MAINTENANCE AND MANAGEMENT INFO SYS (AMMIS)	CG ACFT REP & SUPCEN	2 /	2	0 /	0	0 /	0	0 /	0	2	2
	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	2 /	2	0 /	0	0 /	0	0 /	0	2	2
AN/SPS-64	CG EECEN WILDWOOD	1 /	0.25	0 /	0	2 /	0.5	0 /	0	3	0.75
	CG HEADQUARTERS	4 /	0.25	0 /	0	1 /	0.25	0 /	0	5	0.5
	MAINT & LOG CMD LANT	0 /	0	1 /	0.25	0 /	0	0 /	0	1	0.25
	MAINT & LOG CMD PAC	0 /	0	1 /	0.25	0 /	0	0 /	0	1	0.25
	TOTALS	5 /	0.5	2 /	0.5	3 /	0.75	0 /	0	10	1.75
APPL SFTWR	CG HEADQUARTERS	4 /	1	0 /	0	0 /	0	0 /	0	4	1
	TOTALS	4 /	1	0 /	0	0 /	0	0 /	0	4	1
BUOY BOAT PROJECT (BUSL)	CG HEADQUARTERS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	2 /	2	0 /	0	3	3
	PRO/BELLINGHAM, WA	2 /	2	2 /	2	4 /	3.25	0 /	0	8	7.25
	TOTALS	4 /	4	4 /	4	6 /	5.25	0 /	0	14	13.25
C-130 AEW PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	GC AIRSTA CLEARWATER	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0

FTP Figures are End of Year FY94 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
CENPAC CLOSURE PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	TOTALS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
CIWS/HARPOON PROJECT	CG HEADQUARTERS	0 /	0.5	0 /	0.5	0 /	0	0 /	0	0	1
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD PAC	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0.5	0 /	0.5	0 /	0	0 /	0	0	1
COMSTA AUTOMATION	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	TOTALS	0 /	0	0 /	0	0 /	0	1 /	1	1	1
CONFIGURATION MANAGEMENT	CG HEADQUARTERS	2 /	2	0 /	0	1 /	1	1 /	1	4	4
	CG SUPCEN CURTIS BAY	2 /	2	1 /	1	2 /	2	0 /	0	5	5
	TOTALS	4 /	4	1 /	1	3 /	3	1 /	1	9	9
COCKPIT VOICE RECORDER/ FLIGHT DATA RECORDER	CG HEADQUARTERS	0 /	0	1 /	1	0 /	0	0 /	0	1	1
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	TOTALS	0 /	0	1 /	1	0 /	0	1 /	1	2	2
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0.75	0	0.75
	CEU JUNEAU	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	ONSCEN, Va	0 /	1.5	0 /	0	0 /	0	0 /	0	0	1.5
	EECEN, NJ	0 /	1.5	1 /	1	4 /	5.5	0 /	0	5	8
	TRACEN, NJ	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	3	1 /	1	4 /	5.5	1 /	1.75	6	11.25
DOT STUDY GROUP	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
FLAR INSTALLATION PROJECT	CG HEADQUARTERS	0 /	0.5	0 /	0	0 /	0	0 /	0	0	0.5
	CG ACFT REP & SUPCEN	0 /	0.5	0 /	0.5	0 /	3	0 /	3	0	7
	TOTALS	0 /	1	0 /	0.5	0 /	3	0 /	3	0	7.5
FT4A GAS TURBINE PROJECT	CG SUPCEN CURTIS BAY	1 /	0.25	0 /	0	1 /	0.25	0 /	0	2	0.5
	TOTALS	1 /	0.25	0 /	0	1 /	0.25	0 /	0	2	0.5
GLOBAL MARITIME DISTRESS & SAFETY SYSTEM	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	TOTALS	0 /	0	0 /	0	0 /	0	1 /	1	1	1
GPS (Aviation)	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	1 /	1	1 /	1	2	2
	TOTALS	1 /	1	0 /	0	1 /	1	1 /	1	3	3

FTP Figures are End of Year FY94 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
HH60 MRR PROJECT	CG HEADQUARTERS	6 /	6	0 /	0	1 /	1	0 /	0	7	7
	CG ACFT REP & SUPCEN	0 /	0	0 /	0.5	0 /	0.5	3 /	3	3	4
	TOTALS	6 /	6	0 /	0.5	1 /	1.5	3 /	3	10	11
ICEBREAKER RELIABILITY IMPROVEMENT PROJECT (RIP)	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CG NAVAL ENG SUP SEATTLE	2 /	2	0 /	0	4 /	4	0 /	0	6	6
	MAINT & LOG CMD PAC	2 /	2	1 /	1	0 /	0	8 /	8	11	11
	TOTALS	5 /	5	1 /	1	4 /	4	8 /	8	18	18
ICEBREAKER REPLACEMENT PROJECT (PIR)	CG HEADQUARTERS	7 /	7	0 /	0	1 /	1	2 /	2	10	10
	CG SUPCEN BROOKLYN	1 /	0.25	0 /	0	1 /	0.25	2 /	1	4	1.5
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	4 /	1	1 /	0.5	6	2.5
	PRO/TBD	9 /	6.75	3 /	3	8 /	8	0 /	0	20	17.75
	TOTALS	17 /	14	4 /	4	14 /	10.25	5 /	3.5	40	31.75
IRM (DISTRIBUTED COMPUTING)	CG EECEN WILDWOOD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	INFO SYSTEMS CENTER	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
LAW ENFORCEMENT INFORMATION SYSTEM PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	2 /	2	3	3
	TOTALS	1 /	1	0 /	0	0 /	0	2 /	2	3	3
MACKINAW PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
MARINE INFORMATION FOR SAFETY & LAW ENFORCEMENT (MISLE)	CG HEADQUARTERS	6 /	6	0 /	0	0 /	0	4 /	4	10	10
	TOTALS	6 /	6	0 /	0	0 /	0	4 /	4	10	10
MEDICAL MGMT INFO SYS	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	TOTALS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
MIGRATION TO NEXT STANDARD WORKSTATION	CG HEADQUARTERS	4 /	3.25	0 /	0	0 /	0	1 /	1	5	4.25
	CG EECEN	1 /	1	0 /	0	0 /	0	1 /	1	2	2
	INFO SYSTEMS CENTER	3 /	0.75	0 /	0	0 /	0	0 /	0	3	0.75
	MAINT & LOG CMD LANT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	MAINT & LOC CMD PAC	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	OSC, VA	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
	TOTALS	9 /	5.25	0 /	0	0 /	0	2 /	2	11	7.25
MOTOR LIFEBOAT PROJECT (MLB)	CG HEADQUARTERS	5 /	5	2 /	2	1 /	0.25	2 /	2	10	9.25
	CG MLB PRO	2 /	0.5	1 /	1	1 /	1	0 /	0	4	2.5
	CG SUPCEN BROOKLYN	1 /	0.25	0 /	0	1 /	1	0 /	0	2	1.25
	CG SUPCEN CURTIS BAY	0 /	0	0 /	0	3 /	3.25	0 /	0	3	3.25
	NAT MOTOR LFBOAT SCH	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	8 /	5.75	3 /	3	6 /	5.5	2 /	2	19	16.25

PROJECT	LOCATION	FTP Figures are End of Year FY94 Estimates						FTE Figures Assume 0% Lapse Rate			
		CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
NORPAC LORAN PROJECT	CG EECEN	1 /	1	0 /	0	0 /	0	2 /	2	3	3
	CG PAC AREA	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	1 /	1	0 /	0	0 /	0	2 /	2	3	3
PATROL BOAT PROJECT (WPB) ISLAND & HERITAGE CLASSES	CG HEADQUARTERS	9 /	8.25	0 /	0	0 /	0	3 /	3	12	11.25
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	2 /	0.5	0 /	0	0 /	0	0 /	0	2	0.5
	COAST GUARD YARD	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	RIO LOCKPORT	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	PRO(TBD)	3 /	0.75	1 /	0.25	1 /	0.25	0 /	0	5	1.25
	TOTALS	14 /	9.5	1 /	0.25	1 /	0.25	3 /	3	19	13
POLAR CLASS (CONSOLE)	MAINT & LOG CMD PAC	0 /	0	1 /	1	0 /	0	0 /	0	1	1
	NAVENGSUPRT SEATTLE	1 /	1	1 /	1	1 /	1	0 /	0	3	3
	TOTALS	1 /	1	2 /	2	1 /	1	0 /	0	4	4
SYSTEM TO AUTOMATE & INTEGRATE LOGISTICS	CG HEADQUARTERS	5 /	4.25	2 /	1.25	0 /	0	2 /	2	9	7.5
	TOTALS	5 /	4.25	2 /	1.25	0 /	0	2 /	2	9	7.5
SECURE COMMUNICATIONS	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	TOTALS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
SELECTED MAJOR ACQUISITIONS	CG HEADQUARTERS	1 /	1	1 /	1	0 /	0	2 /	2	4	4
	TOTALS	1 /	1	1 /	1	0 /	0	2 /	2	4	4
SHORE CONSTRUCTION PROGRAM	CG FD & CC ATLANTIC	19 /	13	0 /	0	3 /	3	52 /	52	74	68
	CG FD & CC PACIFIC	13 /	10.75	0 /	0	1 /	1	30 /	30	44	41.75
	CEUs NY, Prov, Clev, Miam	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	CG HEADQUARTERS	7 /	6.25	0 /	0	0 /	0	21 /	21	28	27.25
	MLCLANT	1 /	0.25	0 /	0	0 /	0	0 /	0	1	0.25
	MLCPAC	3 /	0.75	0 /	0	0 /	0	3 /	3	6	3.75
	TOTALS	43 /	31	0 /	0	4 /	4	107 /	107	154	142
MINI COMPUTER/STANDARD WORKSTATION RECOMPETE	CG HEADQUARTERS	2 /	2	0 /	0	0 /	0	3 /	3	5	5
	EECEN, NJ	1 /	1	0 /	0	0 /	0	1 /	1	2	2
	ISC	0 /	0	0 /	0	0 /	0	2 /	2	2	2
	TOTALS	3 /	3	0 /	0	0 /	0	6 /	6	9	9
TALON PROJECT	CG HEADQUARTERS	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG ACFT REP & SUPCEN	0 /	0	0 /	0	0 /	0	6 /	6	6	6
	TOTALS	0 /	0	0 /	0	0 /	0	6 /	6	6	6
TCAS PROJECT	CG HEADQUARTERS	1 /	1.5	0 /	0	0 /	0	0 /	0	1	1.5
	TOTALS	1 /	1.5	0 /	0	0 /	0	0 /	0	1	1.5

FTP Figures are End of Year FY94 Estimates FTE Figures Assume 0% Lapse Rate

PROJECT	LOCATION	CO		CWO		ENL		CIV		TOTALS	
		FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE	FTP	FTE
VESSEL TRAFFIC SYSTEM (VTS)	CG HEADQUARTERS	8 /	5.75	0 /	0	0 /	0	4 /	3.5	12	9.25
	EECEN	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	CEU MIAMI	1 /	0.25	0 /	0	0 /	0	1 /	1	2	1.25
	CEU OAKLAND	0 /	0	0 /	0	0 /	0	1 /	1	1	1
	MLCLANT	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	TOTALS	11 /	8	0 /	0	0 /	0	6 /	5.5	17	13.5
VHF-FM PROJECT	CG HEADQUARTERS	1 /	1	0 /	0	0 /	0	0 /	0	1	1
	ISC	1 /	1	1 /	1	0 /	0	0 /	0	2	2
	TOTALS	2 /	2	1 /	1	0 /	0	0 /	0	3	3
SEAGOING BUOY TENDER (WLB) PROJECT(S)	CG HEADQUARTERS	14 /	13	1 /	1	0 /	0	4 /	4	19	18
	CG SUPCEN BROOKLYN	0 /	0	0 /	0	0 /	0	0 /	0	0	0
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	1 /	1	0 /	0	2	2
	PRO (WLB)	14 /	12	6 /	6	17 /	16	0 /	0	37	34
	TOTALS	28 /	25	8 /	8	18 /	17	4 /	4	58	54
COASTAL BUOY TENDER (WLM) PROJECT(S)	CG HEADQUARTERS	4 /	4	1 /	1	0 /	0	2 /	2	7	7
	CG SUPCEN CURTIS BAY	0 /	0	1 /	1	1 /	1	0 /	0	2	2
	R&D CENTER	1 /	1	0 /	0	1 /	1	0 /	0	2	2
	PRO (WLM)	12 /	12	6 /	6	17 /	17	0 /	0	35	35
	TOTALS	17 /	17	8 /	8	19 /	19	2 /	2	46	46
CORE PROGRAM STAFF	CG HEADQUARTERS	39 /	30.5	4 /	4	7 /	7	99 /	96.5	149	138
	CG SUPCEN BROOKLYN	1 /	1	1 /	1	3 /	3	10 /	10	15	15
	CG SUPCEN CURTIS BAY	1 /	1	1 /	1	0 /	0	20 /	18.5	22	20.5
	AR&SC	2 /	1.25	0 /	0	0 /	0	0 /	0	2	1.25
	INFO SYSTEMS CENTER	2 /	2	0 /	0	0 /	0	0 /	0	2	2
	TOTALS	45 /	35.75	6 /	6	10 /	10	129 /	125	190	176.75
	SUBTOTALS	253 /	207	51 /	50.25	107 /	101.5	303 /	303.2	714	662
	BUDGET TOTALS	MILITARY 411/359						CIVILIAN 303/279			
	GRAND TOTAL	714/638									

*Spreadsheet totals assumed 0% lapse rate. Budget request (FTE and funds) provides for an 8% lapse rate on civilian positions, which has been validated by semi-annual civilian position vacancy reports. The extraordinary vacancy rate on AC&I civilian positions is due to the difficulty in attracting and retaining civilians for temporary AC&I project positions.

ALLOTMENT FUND CODE 4X EXPENDITURE AND OBLIGATION HISTORY

(339) SENATOR LAUTENBERG: Please provide historical data going back six years through FY 1992 and the anticipated level for FY 1993 for total annual expenditures for each of your 4X accounts.

ADMIRAL KIME: In prior years, the Coast Guard provided cost information for the 4X accounts based on expenditure data. An improvement in the Coast Guard's ability to retrieve data from the accounting system now makes it possible to provide costs for the 4X accounts based on obligation data, which are a better indication of the costs incurred for a fiscal year. These data are available beginning from Fiscal Year 1991 through the last full fiscal year (in this case FY 1992). Therefore, the Coast Guard will provide obligation data vice expenditure data in the future. To provide a basis of comparison to last year's response, and to facilitate the transition to obligation data reporting for next year, both expenditure and obligation information are provided in the following tables:

FY 1988-1993 AFC-4X EXPENDITURES
(thousands of dollars)

Fiscal Year	Aircraft AFC-41	Electronics AFC-42	Shore AFC-43	Logistics AFC-44	Vessels AFC-45
1987	89,953	35,967	70,041	[1]	75,570
1988	106,169	30,452	55,700	[1]	52,606
1989	118,418	33,822	70,229	[1]	62,290
1990	142,890	28,380	68,287	[1]	79,763
1991	136,799	36,279	89,772	2,140	107,735
1992	134,685	43,191	73,831	1,044	67,524
1993[2]	151,330	44,616	81,867	1,078	69,752

[1] AFC-44 created in FY 1991.
[2] Estimate based on the FY 1992 levels plus cost-of-living increase and other expected adjustments.

FY 1991-1993 AFC-4X OBLIGATIONS
(thousands of dollars)

Fiscal Year	Aircraft AFC-41	Electronics AFC-42	Shore AFC-43	Logistics AFC-44	Vessels AFC-45
1991	131,192	45,641	87,550	2,976	89,994
1992	123,193	36,972	96,570	3,720	99,781
1993[1]	142,555	40,562	98,812	3,031	104,156

[1] Estimated.

ALLOTMENT FUND CODE 4X EXPENDITURE HISTORY

(340) SENATOR LAUTENBERG: What was the anticipated level for your 4X operating guides in your OPSTAGE operating plan for 1993, and what level of funding has been or is likely to be reprogrammed out of the 4X accounts within 1993 for other activities? Please specify each transfer.

ADMIRAL KIME: The following table provides a summary of changes in status of funds distributed to the maintenance accounts, including reimbursable and refund distributions as of 01 July, 1993:

	OPSTAGE	Changes to Date
AFC-41 -	$142,555K	($342K)
AFC-42 -	$ 40,562K	($2,660K)
AFC-43 -	$ 93,292K	$5,900K
AFC-45 -	$104,156K	($1,493K)

There have been no reprogrammings in the administration of the maintenance accounts to date in FY 1993. Most of the large dollar transactions affecting these accounts have involved either reductions in the level of reimbursable support expected from the U. S. Navy at OPSTAGE, or distributions of maintenance funds to the FY 1993 Operating Expenses Appropriation from supplemental (hurricane) support provided by P.L. 102-368.

A detailed description all FY 1993 changes in financial plan (CIFP's) is provided in response to a later question. Those CIFP's that pertain to the maintenance accounts as of 01 July, 1993 are:

93 OE9800020 93 OE9800023 93 OE9800032 93 OE9800053
93 OE9800059 93 OE9800073 93 OE9800079 93 OE9800080
93 OE9800081 93 OE9800082 93 OE9800083 93 OE9800090
93 OE9800116 93 OE9800164 93 OE9800170 93 OE9800185
93 OE9800189 93 OE9800202 93 OE9800216 93 OE9800217
93 OE9800229 93 OE9800241 93 OE9800242 93 OE9800245
93 OE9800265 93 OE9800291 93 OE9800298 93 OE9800306
93 OE9800308 93 OE9800311 93 OE9800312 93 OE9800313
93 OE9800319 93 OE9800323 93 OE9800325 93 OE9800327
93 OE9800335 93 OE9800352 93 OE9800354 93 OE9800359
93 OE9800371 93 OE9800373 93 OE9800387 93 OE9800394

Based on experience, it is likely that numerous additional adjustments will be made in the funding level of the Operating Expenses maintenance accounts prior to the close of FY 1993. Since these transfers will be based on presently unknown information and events, I am uncertain as to their dollar level and execution date.

WLB ACQUISITION SCHEDULES

(341) SENATOR LAUTENBERG: Please provide the revised acquisition schedule for the WLB replacement program alongside the old schedule previously provided on page 313 of the FY93 Senate hearing record. Please explain any schedule delays encountered.

ADMIRAL KIME: The WLB acquisition schedule is as follows:

	Current (or actual)	Previous Estimate
Issued contract design solicitation	18 May 90	
Received proposals	10 Oct 90	
Awarded contract designs	28 May 91	
Complete contract designs	24 Feb 92	
Award lead ship contract	Jan 93	2nd QTR FY 93
Deliver lead ship	FY 96	FY 96
Complete lead ship testing	FY 96	FY 96
Award full production contract	FY 97	FY 97
Deliver first production vessel	FY 99	FY 99
Deliver last production vessel	FY 04	FY 04

(342) SENATOR LAUTENBERG: Please also provide the revised acquisition schedule for the WLM replacement program alongside the old schedule previously provided on page 313 of the FY93 Senate hearing record, along with an explanation for any schedule delays.

ADMIRAL KIME: The WLM acquisition schedule follows:

	Current (or actual)	Previous Estimate
Draft RFP completed	May 91	May 91
Release Draft RFP for industry comments	Jun 91	Jun 91
Issue Solicitation for Lead Ship design and construction	Jul 92	Jul 92
Proposals received	Dec 92 [1]	4th Qtr FY92
Lead Ship Design and Construction Award	Jun 93	3rd Qtr FY93
Lead Ship Delivered	1st Qtr FY96	FY96
Test of Lead Ship Completed	3rd Qtr FY96	FY96
First Vessel Option Exercised	FY95 [2]	FY95

Delivery of first option vessel	FY97 [3]	FY97
Delivery of last option vessel	FY00	FY00

Notes: [1] Offerors requested and were granted additional time to prepare offers. Contract was awarded on schedule.
[2] WLM contract provides the capability, but an obligation, to obtain all required vessels from the lead ship contractor through use of options.
[3] Construction period for each option ship is 720 days.

(343) SENATOR LAUTENBERG: Please provide an updated acquisition schedule for the Motor Lifeboat (MLB) replacement program alongside the old schedule previously provided on page 316 of the FY93 Senate hearing record, along with an explanation for any schedule delays.

ADMIRAL KIME: The prior and current acquisition schedules for the Motor Lifeboat replacement program are as follows:

	PRIOR	CURRENT
Issued Full Scale Development Phase RFP	23 Oct 87	
Awarded Full Scale Development Phase Contract	29 Jun 88	
Completed Contract Design	01 Aug 89	
Delivered Prototype	24 Sep 90	
Exercised Five Boat Option	27 Nov 91	
Completed Developmental Test & Evaluation	Jul 92	
Deliver First Preproduction Boat	Mar 93	Jul 93
Deliver Last Preproduction Boat	3QTR FY93	4QTR FY93
Complete Operational Test and Evaluation	3QTR FY94	4QTR FY94
Issue Production Phase RFP	4QTR FY94	1QTR FY95
Award Production Phase Contract	FY95	FY95
Deliver First Production Phase Boat	FY97	FY97
Deliver Last Production Phase Boat	FY02	FY02

The delay has involved delivery of the pre-production boats with the resulting ripple effect through subsequent dependent events. The principal cause of this delay has been the correction of numerous minor construction discrepancies in the pre-production boats. The Coast Guard has refused to accept the vessel until these items are corrected to insure the operational evaluation will not be impeded by uncorrected discrepancies.

WLB SEAGOING BUOY TENDER PROJECT

(344) SENATOR LAUTENBERG: Your request for $45 million for the WLB project indicates that your plan for FY 1994 is to exercise the options for "up to 2 additional WLB replacement vessels". Given the fact that you have budgeted $36 million for the exercise of these options, how low can the appropriations be for the remaining $9 million before you would consider foregoing the option on one of the WLBs?

ADMIRAL KIME: The $45 million requested in FY 1994 will, when combined with an expected $20 million carryover from FY 1993, provide funding for two option vessels, as detailed below.

Vessel Construction & Contract ILS (2 ships)	$52,000,000
Other ILS, outfit & training aids	2,000,000
EPA/Allowance for Growth	10,000,000
Test and Evaluation, PRO/Proj Admin	1,000,000
Total	$65,000,000
Less Carryover	(20,000,000)
Net Requirement	$45,000,000

All of the above elements are required to adequately build, support and monitor the acquisition of two (2) Seagoing Buoy Tenders in FY94. Certain efficiencies inherent in procuring multiple vessels in one fiscal year are realized for this reduction below the single vessel cost. Without these efficiencies, the Coast Guard requires $16.7 million to procure one (1) WLB in FY94, assuming $20 million is carried over from FY93.

(345) SENATOR LAUTENBERG: Of the $9 million requested above the $36 million, what portion of it could be deferred to a future year without calling into question the merit of exercising your option on two vessels in FY 1994?

ADMIRAL KIME: We do not believe that it is possible to defer any of the FY94 funding without calling into question the merit of exercising the option on the two vessels for several important reasons. The $45 million requested in FY 1994 will, when combined with an expected $20 million carryover from FY 1993, provide funding for two option vessels, as detailed below.

Vessel Construction & Contract ILS (2 ships)	$52,000,000
Other ILS, outfit & training aids	2,000,000
EPA/Allowance for Growth	10,000,000
Test and Evaluation, PRO/Proj Admin	1,000,000
Total	$65,000,000
Less Carryover	(20,000,000)
Net Requirement	$45,000,000

Deferring some of the line items listed above will result in elimination of elements or activities designed to insure proper monitoring and control of this major acquisition, or in failure to provide adequate allowances for within scope contract growth, typical in lead ship & pre-production contracts. Some items, like economic price adjustment, are required by the provisions of the contract. Test and evaluation and administrative costs are required in FY 1994 to continue activities associated with the lead ship construction taking place now, regardless of option vessel award.

Reduction below the requested $45 million also has serious implications for the overall level of the Coast Guard AC&I appropriation. The Coast Guard has consistently demonstrated a requirement above the current baselines being imposed. Reductions of the FY94 WLB request will place even greater pressure on the outyear "bow wave" of acquisition requirements that looms in the remainder of this decade. FY94 offers an excellent opportunity to "buy down" the future bow wave before other projects such as the Coastal Buoy Tender and 47' Motor Lifeboat reach their peak funding years. From an operations perspective, early acquisition of modern WLBs will save much needed OE funds in the outyears by reducing the number of crew on each vessel and also the number of ships, while introducing mission enhancing technologies including oil response capabilities.

(346) SENATOR LAUTENBERG: In a briefing on the WLB project dated February 8, 1993, you showed a preliminary FY 1994 need of $58 million instead of the $45 million requested. What was envisioned at the $58 million funding level that will not occur in FY 1994 if your request of $45 million is fully funded?

ADMIRAL KIME: The $58 million request reflected the pre-contract award estimate to procure one (1) WLB option vessel in FY94. The unanticipated carryover resulting from the lower actual cost of the WLB lead ship and option vessels permitted the Coast Guard to reduce the FY94 WLB request to $45 million to acquire two (2) option vessels and fund all associated administrative and contract requirements. All equipment, services and administrative activities envisioned for FY94 at the $58 million level will be acquired for two vessels at the $45 million level, assuming the $20 million carryover from FY93.

(347) SENATOR LAUTENBERG: Did you envision exercising the option on a third WLB?

ADMIRAL KIME: No. We would like to accelerate the procurement of the WLBs to buy down the impending AC&I appropriation "bow wave", introduce new oil response capability into the fleet, and to realize operational savings associated with the new WLBs including a smaller fleet and crew size. However, the $58 million request was based on pre-contract award estimates to procure one (1) WLB option vessel in FY94. This figure was adjusted downward to reflect the contract price after award. The $45 million requested in FY 1994 will, when combined with an expected $20 million carryover in FY 1993, provide for two option vessels.

(348) SENATOR LAUTENBERG: If funding is provided for 1 as opposed to 2 option ships for WLBs in FY 1994, what will be the remaining requirements for integrated logistics support, operational test and evaluation planning, PRO establishment and administration, and PRO support services contracts?

ADMIRAL KIME: The $45 million requested in FY 1994 will, when combined with an expected $20 million carryover in FY 1993, provide for two option vessels plus the associated ILS, testing, PRO and administrative costs. If funding is provided for only one option vessel in FY 1994 the funding requirements are as shown below:

Vessel construction & Contract ILS	$26.8M
Other ILS, outfit, & training aids	1.9
EPA/Allow for growth 1st & 2nd vessel	7.0
Test & Evaluation, PRO/Proj. Admin.	1.0
Total	$36.7M
Less Carryover	($20.0)
Net Requirement	$16.7M

(349) SENATOR LAUTENBERG: In FY 1993, you requested $1 million for Project (PRO) administration and support services contracts, the same amount as you are requesting in FY 1994. Yet, the PRO was not established until March 1, 1993. Was the entire $1 million provided in FY 1993 utilized for the purposes for which they were requested?

ADMIRAL KIME: The FY 93 request indicated $750,000 for Project Administration and Support Services. These are functions that are provided at Coast Guard Headquarters and required a full year of support, regardless of when the contract was awarded or when the PRO was established. The remainder of the funding ($250,000) was intended for establishment of the PRO, as well as operational expenses. To date in FY 93, we have expended $1.3 million on administrative costs, and approximately $200,000 on establishment and operation of the WLB Project. Project administration requirements in excess of FY93 appropriations were met using carryover project funds.

(350) SENATOR LAUTENBERG: What gave rise to the unobligated balance of more that $20 million that you expect to experience at the end of 1993 for the WLB program?

ADMIRAL KIME: The $20 million carryover is a direct result of an advantageous WLB lead ship contract price. The contract award price was less than the FY 1992 budgeted amount (which was carried over to FY 1993 to provide for contract award) by approximately $20 million.

(351) SENATOR LAUTENBERG: In regard to your WLB buoy tender replacement project, please provide a summary regarding the Marinette Marine Shipyard's history of work for the Department of Defense. Have there been any noteworthy shipbuilding contracts which Marinette did not perform as expected by DoD? Were there significant cost overruns and schedule delays associated with any prior DoD contracts to Marinette? If so, please quantify these schedule delays and cost overruns.

ADMIRAL KIME: Prior to award of the Lead Ship WLB contract, a Pre-Award Survey was performed by the U.S. Navy's Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP) office in Sturgeon Bay, WI. Pre-award surveys are a standard requirement performed for each vendor submitting proposals. SUPSHIP Sturgeon Bay reported that Marinette Marine Corp. (MMC) has extensive experience on DoD contracts. The following table provides MMC's delivery performance on recent DOD contracts.

	Contract Delivery Date	Actual Delivery Date
Avenger Class Minesweeper (MCM-7)	7/29/92	7/29/92
Avenger Class Minesweeper (MCM-4)	1/07/91	1/07/91
Avenger Class Minesweeper (MCM-2)	7/01/89	9/08/89
Yard Patrol Craft (7 ea)	6/01/88	9/10/88
(13 ea)	10/01/86	10/01/86
Torpedo Weapon Retrievers (2 ea)	6/86	2 del in 86
(8 ea)	2/85-8/85	8 del in 85/86

The final price of the Avenger Class Minesweeper (MCM) contracts was higher than awarded due to change orders. Change orders are changes requested by the government after the design and/or production has commenced. It would be misleading to characterize change order increases as cost overruns because MMC was building the ships to a DOD design which was modified extensively during ship construction. Cost figures for the ships are indicated below;

	Type Contract	Original Price	Change Orders*	Final Price
MCM-7	Fixed Price w/ escalation	$51.9M	$12.2M	$64.1M
MCM-4	Fixed Price w/ escalation	$42.0M	$30.7M	$72.7M
MCM-2	Cost Plus converted to Fixed Price	$42.8M	$52.5M	$95.3M

* Change order costs were mutually agreed upon by MMC and the government.

Both the Administrative Contracting Officer and Assistant Program Manager for the MCM program were interviewed prior to the WLB Lead Ship contract award. Both respondents indicated that MMC's past performance, overall cost performance, technical abilities, and current capabilities were good. These opinions were also expressed in the Navy SUPSHIP Pre-Award Survey. Based upon the information we have obtained, there does not appear to be any noteworthy shipbuilding contracts in which MMC did not perform as expected by DOD.

WLM COASTAL BUOY TENDER PROJECT

(352) SENATOR LAUTENBERG: In regard to your WLM coastal buoy tender project, when do you expect to announce your lead ship design and construction award?

ADMIRAL KIME: The contract for lead ship design and construction of the Coastal Buoy Tender replacement was awarded to Marinette Marine Corp., Marinette, WI, on 22 June 1993.

(353) SENATOR LAUTENBERG: What date do you estimate you will be expecting to establish your PRO for the WLM program? Does that date still indicate the need for $1.2 million for PRO establishment, administration, and support services?

ADMIRAL KIME: The Coast Guard anticipates establishing the WLM Project at Marinette during the 4th QTR FY93. We are developing a consolidation plan to identify potential efficiencies of combining the WLM PRO with the previously established WLB PRO organization at Marinette. We expect that consolidation to be completed in the 4th QTR, FY93. Only $650,000 of the FY93 WLM request, and $600,000 of the FY94 request, is intended for the establishment and operation of the WLM PRO. Based on experience from the WLB PRO, we anticipate WLM PRO costs to be approximately $200,000 in FY93. To date, FY93 WLM administrative costs have been approximately $540,000. Based upon the latest estimates, we expect the FY 1994 Project Administration/ Support Services costs to be $600,000 and the PRO costs to be approximately $250,000. Therefore, we will need $850,000 for these items in FY94. This reduces the total FY94 request from $1,700,000 to $1,350,000.

(354) SENATOR LAUTENBERG: You have also requested $500,000 for test and evaluation. Given that you will not have a ship to test or evaluate in FY 1994, what will this funding be used for?

ADMIRAL KIME: Funding is required for the Coast Guard Research and Development Center (R&DC) to perform their functions as the Independent Operational Test and Evaluation Advisor to the Coast Guard's Acquisition Executive for the Coastal Buoy Tender Project. These funds cover contractor support for engineering analyses associated with Independent Operational Assessment (IOA). IOA provides the Agency Acquisition Executive with an independent assessment of the operational effectiveness and suitability of the ship based upon a review of the test and evaluation data produced during detail design development. IOA activities must begin immediately after project initiation to provide an early assessment to support the option award decision prior to delivery of the lead ship. IOA is a requirement of Department of Transportation Acquisition procedures. Funds also cover contractor support to prepare test plans for Operational Test and Evaluation (OT&E) of the lead ship and R&DC oversight and planning staff costs.

(355) SENATOR LAUTENBERG: Admiral Kime, as a result of your awarding the lead ship contract for the WLB project, you discovered that proposed ship designs by the winning shipyard allowed you to downsize the anticipated total cost of the WLB project by a considerable percentage. At this time, do you have any reason to believe that the WLM project will be considerably less expensive than the $320 million currently estimated? Do you have any indications that it might be considerably more expensive? If so, why?

ADMIRAL KIME: Prior to award of the WLM lead ship contract the total project cost was estimated at $350M. Based upon an early assessment of the WLM lead ship contract, the total project costs are now projected to be $260-350M. The upper limit of the cost range is based upon the Government's maximum liability (ceiling price) under the fixed price incentive contract structure used for the lead ship and option vessels.

VC-4 AND VC-11 AIRCRAFT

(356) SENATOR LAUTENBERG: Please provide a table showing the maintenance costs associated with the VC-4 aircraft for the last five years, and estimated maintenance costs for FY 1994. Please provide an identical table for the VC-11 aircraft.

ADMIRAL KIME: The FY 1989 through FY 1994 maintenance costs (Unit and Depot Level) associated with the VC-4 and VC-11 aircraft follows.

VC-4 AIRCRAFT MAINTENANCE COSTS

Fiscal Year					
1989	1990	1991	1992	1993	1994
$353K*	$363K*	$431K	$686K	$533K	$310K**

* These figures represent the beginning year base funding budgets for maintenance of the VC-4A aircraft which was located at USCG Air Station Elizabeth during FY89 and FY90. Detailed records of maintenance funds expended during these years were not retained when the aircraft was transferred to Washington, D.C. in FY 1991.

** Estimate.

VC-11 AIRCRAFT MAINTENANCE COSTS

Fiscal Year					
1989	1990	1991	1992	1993	1994

$434K	$399K	$279K	$439K	$309K	$538K*

* Estimate.

(357) SENATOR LAUTENBERG: In regard to your request for aircraft cockpit voice recorders and flight data recorders, has FDRs and CVRs been outfitted on the VC-4 and VC-11A aircraft? If not, when do you anticipate installing those devices? What funds have been/will be used for these installations? From what fiscal year?

ADMIRAL KIME: VC-4A and VC-11A aircraft have cockpit voice recorders installed. FY1993 AC&I funding provided for purchase and installation of a flight data recorder (FDR) for the VC-4A. In FY1993, $20,000 was spent on nonrecurring engineering design and project management. VC-4A flight data recorder installation is scheduled for December 1994. Installation of a FDR in the VC-11A pends a final decision on the acquisition of a replacement long range command and control aircraft.

To date, $2.1 million has been obligated. An additional $7.1 million is expected to be obligated in FY93.

CONFIGURATION MANAGEMENT PROGRAM

(358) SENATOR LAUTENBERG: Please provide an update on your configuration management program. What has been accomplished with the almost $14 million appropriated to date?

ADMIRAL KIME: The configuration management program is on schedule and budget. The program involves automating equipment configuration and maintenance data on 101 vessels in six different classes. The following is a list of accomplishments for the configuration management project:

1. We have implemented eight prototype systems on two cutter classes, the 210' WMEC and the 110' WPB. Through these operational prototypes we were able to validate the requirements and scope of the configuration management (CM) program. We gathered customer input on the utility and operation of the system.

2. We have installed a pilot system (CM Plus) on still another cutter class, the 140' WTGB. This pilot system has proven our concepts of operations and lessons learned during the prototype.

3. We have begun retrofit of the prototype vessels with CM Plus.

4. We have begun development of the production software package to operate the system, and it is scheduled for completion in September 1993.

5. We are purchasing the required computer hardware for all ships in the configuration management project to provide the users with a standard computer equipment.

6. We have started lead ship efforts for two more classes of cutters, the 378' WHEC and the 270' WMEC. The configuration management project includes an extensive onboard inventory of equipment, technical manuals, drawings and maintenance/repair procedures on a lead ship in each vessel class. This information is loaded into the data base that will be maintained and used by shipboard personnel. The lead ship data base will be revised as necessary for all other ships in that class rather than conducting a full inventory for each ship.

7. We have contracted to keep the configuration data updated until the software system is delivered, installed and the operators are trained to use CM Plus. The contractor will periodically update the data base as required until the CM Plus system is fully operational and in use.

CONFIGURATION MANAGEMENT PROGRAM

(359) SENATOR LAUTENBERG: What amount of funding, if any, was unobligated at the end of FY 1992? What amounts do you anticipate to be unobligated at the end of FY 1993 and the end of FY 1994, should your request be fully funded?

ADMIRAL KIME: There were $32,000 in unobligated funds at the end of FY 1992. We anticipate $75,000 to remain unobligated at the end of FY 1993, which will be obligated for procurement of computer hardware early in FY 1994. We anticipate no unobligated funds at the end of FY 1994, and believe the FY 1994 request should be fully funded.

FT-4A GAS TURBINE LOGISTICS

(360) SENATOR LAUTENBERG: In regard to your request for FT-4A gas turbine logistics support, please quantify the costs, both in dollars and personnel hours to date, due to the unsatisfactory situation with the availability of FT-4A gas turbine parts.

ADMIRAL KIME: We cannot accurately quantify the financial and personnel costs associated with managing the existing unsatisfactory FT-4A gas turbine situation due primarily to an inadequate engineering logistics data system. However, we can note that we have been unable to award a standard overhaul contract for FT-4A gas turbine engines for the past three years because contractors are reluctant to bid due to the fixed price nature of the contracts, the limited availability of spare parts and the high cost of locating and acquiring these parts.

We intend to operate these gas turbine engines until approximately 2015, throughout the life of the 378' WHEC's and Polar class icebreakers. Re-engining the ships is not a viable economic alternative regardless of the increasing maintenance costs associated with the FT-4A gas turbines. However, we see a clear opportunity to avoid millions of dollars in future cost increases by procuring some parts now in economic ordering quantities.

An illustration of the extreme volatility of the price of gas turbine spare parts is the cost of the FT-4A's diffuser case. The cost of reconditioning an existing diffuser case is approximately $50K. We expect a need for new replacements over the next 20 years because some diffusers will simply fail, wear out or become damaged past the point where they can be reconditioned. There are no existing new replacement cases and the current cost to manufacture a single diffuser case is $350K. The majority of this cost is in the initial planning and preparation ("tooling up") to construct the first diffuser. The second, third and subsequent diffusers are progressively less costly to construct. However, if this part is required during a repair or overhaul, the contractor will only order one and pass the entire cost to the government. The Coast Guard does not have the funding flexibility or system in place to take advantage of any manufacturing opportunity.

Another problem that lack of parts and competition creates is the potential for "lowballing" bids. As an example, the current cost to recondition compressor inlet shrouds for the FT-4A is approximately $11K. We estimate the cost to manufacture could be that same seven fold difference we found in the diffuser case above. However, contractors are only required to bid the cost of a single new inlet shroud, with each additional shroud to be negotiated separately. This leaves the Coast Guard with an overhaul contract that is essentially open ended. If we need more than one shroud, which would normally be the case, we would be charged a disproportionate cost for the additional shrouds to cover the actual cost of manufacturing.

The FT-4A funding request is for procuring new spare parts such as diffuser cases and compressor shrouds in quantities large enough to make the per unit cost economically affordable. These parts can then be provided to contractors as Government Furnished Equipment (GFE) to increase the number and competitiveness of the bids for overhaul contracts. We anticipate that improvements in the Coast Guard's availability and inventory of FT-4A parts will increase the level of competition for the overhaul contracts thereby avoiding significant cost increases in future FT-4A gas turbine maintenance and repair expenses.

(361) SENATOR LAUTENBERG: You state in your justification that, as a result of reprovisioning the FT-4A, reliability will improve and maintenance costs will stabilize. When will you expect reliability to improve? What OE savings can we expect stemming from the stabilization of maintenance costs? In what fiscal year will we see these savings?

ADMIRAL KIME: We expect that reliability will begin to improve as we bring the condition of the fleet FT-4A turbines up to the Original Equipment Manufacturer's (OEM) standard configuration. We can accomplish this only by having a complete inventory of spare parts that were manufactured in quantity according to the original manufacturer's specifications. We cannot ensure standard high quality configuration of FT-4A gas turbine engines when replacement component parts, although required to be constructed according to manufacturer's specifications, are procured individually as needed for the repair or overhaul.

If the FT-4A gas turbine logistics program is fully funded, we expect the project to result in noticeable cost avoidances within 4 to 6 years. The process we envision would take approximately one year to buy parts, two to three years to install the parts on all engines and another two to three years to observe, evaluate and document results. We expect the cost of overhauls to stabilize by FY 2000 when we would begin to realize approximately $2 million annually in cost avoidance through FY 2015 which is the current projected service life of the FT-4A.

WMEC MAJOR MAINTENANCE AVAILABILITY (MMA)

(362) SENATOR LAUTENBERG: In regard to the 210 foot WMEC MMA project, please report on your negotiated close-out of the Colonna's Shipyard contract for the cutters DURABLE and COURAGEOUS, and design deliverables with the USN SUPSHIP. What were the final negotiated costs for this contract? How do those compare with your anticipated close-out costs? How does it compare with the original funds budgeted for the MMA of DURABLE and COURAGEOUS, as well as the design deliverables?

ADMIRAL KIME: The summaries below provide information on the cost of the close-out and design deliverables for the MMA on cutters DURABLE and COURAGEOUS:

COLONNA'S SHIPYARD CLOSE-OUT COSTS

Final Negotiated Cost for DURABLE:	$30.1 M
Final Negotiated Cost for COURAGEOUS:	$29.5 M
Negotiated Close-out Cost for Design Deliverables:	$ 0.8 M
Anticipated Close-out Cost for Design Deliverables:	$ 1.0 M

ORIGINAL BUDGET FOR COLONNA'S SHIPYARD MMA

MMA for DURABLE:	$11.3 M
MMA for COURAGEOUS:	$11.3 M
MMA B-CLASS DESIGN:	$ 3.0 M

(363) SENATOR LAUTENBERG: When will final payment be made to the shipyard for this negotiated close-out? What will be the amounts of that final payment? Will the payment of these close-out costs be funded from FY-93 funds or earlier appropriated funds?

ADMIRAL KIME: A final funds transfer was made to the U.S. Navy Superintendent of Ships, Portsmouth, VA in December 1992 to complete payment to Colonna's Shipyard in the amount of $886,778. Of this payment, $543,339 was paid using FY-92 funds while $343,439 was paid from earlier fiscal year appropriations.

(364) SENATOR LAUTENBERG: Please update the table on page 660 of last year's hearing record regarding the costs of the 210-foot WMEC MMA program.

ADMIRAL KIME: The following table contains the cost history of the 210'foot WMEC MMA program:

(dollars in millions)
COAST GUARD YARD CUTTERS (A-CLASS)

	A-1	A-2	A-3	A-4	A-5
LABOR:	$11.0	$10.1	$10.4	$11.5	$11.4
MATERIAL:	4.3	5.4	5.9	6.0	6.3
ELECTRONICS:	0.9	1.0	1.0	1.0	0.9
DESIGN (TOTAL/5 "A" CLASS):	0.8	0.8	0.8	0.8	0.8
PROVISIONING (TOTAL/16):	0.5	0.5	0.5	0.5	0.5
CARETAKER CREW:	0.7	0.7	0.7	0.7	0.7
MISC:	0.0	0.3	0.5	0.7	0.5
TOTAL:	$18.2	$18.8	$19.8	$21.2	$21.1

COAST GUARD YARD CUTTERS (B-CLASS)

	B-3
LABOR:	$11.9
MATERIAL:	6.3
ELECTRONICS:	0.9
DESIGN (TOTAL/9 "B" CLASS):	0.5
PROVISIONING (TOTAL/16):	0.5
CARETAKER CREW EQUIVALENT:	1.1
MISC:	0.5
TOTAL:	$21.7

COMMERCIAL YARD CUTTERS

	B-1	B-2
LABOR, MATERIAL, NONGOV. ELECTRONICS:	$22.2	$22.4
GOV. ELECTRONICS:	0.5	0.5
GOV. FURNISHED MATERIAL:	0.8	0.8
DESIGN:	3.2	1.4
PROVISIONING (TOTAL/16):	0.5	0.5
SUPSHIP/CG ADMIN:	1.5	1.9
PUBLIC LAW CLAIM:	1.0	1.0
DESIGN DELIVERABLES SETTLEMENT	0.4	0.4
MISC:	-	0.6
TOTAL:	$30.1	$29.5

MOTOR LIFEBOAT REPLACEMENT PROJECT

(365) SENATOR LAUTENBERG: In regard to your Motor Lifeboat replacement project, please explain the reason behind the delay of the deliveries of the five pre-production boats to their delivery sites.

ADMIRAL KIME: The delay is principally attributed to the correction of numerous minor construction discrepancies. It has been the Coast Guard's position not to accept these vessels until these items are corrected. This is to ensure that the government gets the quality product it paid for and to ensure that the operational evaluation won't be impeded by uncorrected discrepancies.

(366) SENATOR LAUTENBERG: When, if at all, do you intend to make a recommendation regarding the need for a damaged rollover stability test?

ADMIRAL KIME: The Department of Transportation's Office of Inspector General (DOT IG) first raised the issue of the damaged rollover test in 1991. Recently, the Coast Guard presented the DOT IG with the test results of an actual rollover (intact) of the first pre-production 47' MLB performed by the manufacturer. The actual test data were then used to verify and validate an independent computer analysis of the rollover condition. This validated computer analysis clearly indicates a positive righting moment for the 47' MLB at all angles, and in a variety of loading conditions. The DOT IG has accepted the independent computer analysis and will recommend the House Subcommittee waive their requirement for a rollover test in the damaged bridge condition. We anticipate a letter that addresses this issue will be released from the Secretary of Transportation to the Chairman of the House Subcommittee on Appropriations that addresses this issue will be released in the very near future.

(367) SENATOR LAUTENBERG: What steps are being taken to address the premature deterioration of piston rings in the prototype Motor Lifeboat?

ADMIRAL KIME: Detroit Diesel performed an analysis of the failure and determined that the piston configuration installed in the prototype MLB engines was defective. Since production of the prototype's engines, Detroit Diesel has developed an improved piston design. The improved design is incorporated into subsequent 6V92 engines, including those installed in the pre-production 47-foot Motor Lifeboats. The improved piston was retrofitted in the prototype boat as a warranty action at no cost to the government. The manufacturer thinks the problem is solved; however, we will continue to closely monitor 47' MLB engine performance.

(368) SENATOR LAUTENBERG: Has the contract for the prototype and pre-production boats with Textron Marine Systems, Inc. been closed out? What was the final cost of this contract? Did it exceed the $6.7 million initially budgeted? If so, by how much?

ADMIRAL KIME: No, the contract with Textron continues until expiration of the one-year warranty period for each boat, approximately September 1994. The current expected final contract cost is $8.1 million which exceeded the $6.7 million estimate by $1.4 million. Additional costs were incurred to incorporate engineering design changes (e.g., vertical vs. canted rudders, redesigned enclosed and open bridges, improved wiring, etc.) necessitated by our experience with the prototype vessel. Since FY90, approximately $10.4 million has been appropriated for prototype design changes, five pre-production boats, engineering changes, project administration, and support.

MOTOR LIFEBOAT PRODUCTION

(369) SENATOR LAUTENBERG: Based on your experience with the pre-production Motor Lifeboats, should we expect the production run of Motor Lifeboats to come in over your current estimate?

ADMIRAL KIME: No, we have a high level of confidence in our latest construction cost estimate completed in December 1992, which was based primarily on actual material and labor costs incurred by Textron Marine Systems during construction of the pre-production vessels.

BUOY BOAT REPLACEMENT PROGRAM (BUSL)

(370) SENATOR LAUTENBERG: In regard to your buoy boat replacement (BUSL) program, what was the final contract cost for the two pre-production vessels?

ADMIRAL KIME: Contract cost for the detailed design and construction of the two pre-production vessels is $3,497,867.

(371) SENATOR LAUTENBERG: How has the new estimate for pre-production vessels impacted the total estimated cost of the program?

ADMIRAL KIME: Based on cost information from the pre-production contract, we have increased the total project cost estimate from $40M to a range of $40M-$55M. This increase is primarily due to a slightly higher contract cost per vessel, a more accurate allowance for Economic Price Adjustment, and a more refined estimate of project costs.

(372) SENATOR LAUTENBERG: What has been the result of your efforts to confirm the Service Force Mix 2000 study's conclusion that 34 boats will be necessary? Do you still assume a need for 34 boats? If not, what number will be required, and what is the new estimated cost of the program?

ADMIRAL KIME: The initial figure of 34 boats was based on replacement of existing buoy boats, and some additional boats to provide response capability where the heavy lift fleet was reduced. The initial analysis remains valid. The Volpe National Transportation Systems Center (VNTSC) has extended the Service Force Mix 2000 analysis to cover the intermediate and small Aids to Navigation resources as a part of the ongoing Short Range Aids Mission Analysis (SRAMA) project.

Although the SRAMA will not be completed until 1994, VNTSC's initial analysis confirms that a minimum of 34 replacement BUSLs would be required as identified in the Service Force Mix 2000 study. In cases where the intermediate sized river construction and buoy tenders (WLI & WLIC) are assigned to service small buoys, we anticipate the final mission analysis report may identify economies that could be realized by expanding the BUSL project and reassigning much of the buoy handling workload to the additional BUSLs. The final optimum BUSL numbers will be available upon completion of SRAMA.

(373) SENATOR LAUTENBERG: Are there any indications based on recent contracting activity and your revalidation of the SFM 2000 study that you need something more or less than the $1.5 million request for the BUSL project in FY 1994?

ADMIRAL KIME: The Short Range Aids Mission Analysis (SRAMA) study has not reported it's findings as yet, and has no impact on the FY94 budget request. However, since delivery of the first boat is now projected for the fourth quarter FY 1994, the $500K requested for Operational Test and Evaluation will not be required in FY 1994. Additionally, since the Coast Guard is procuring two pre-production boats instead of four, $250K of the $500K budgeted for Integrated Logistics Support will not be needed. Only $750K is now needed for FY 1994.

(374) SENATOR LAUTENBERG: How would you evaluate the performance of the SBA 8(a) contractor with whom you have worked on the BUSL project? What responsibility does the contractor have for the fact that you were only able to procure 2, rather than 4, BUSLs?

ADMIRAL KIME: The contractor's performance has been satisfactory to date. This is the contractor's first effort in new construction, and there were some early design integration problems with the design subcontractor; however, positive steps have been taken to resolve those problems. The contractor has demonstrated a strong commitment to the project and has taken prompt action to resolve problems identified by the Government. We are not able to assess the impact of using an SBA 8(a) contractor on the pre-production contract costs. Available project funding allowed us to procure only 2 boats at the unit cost awarded in the contract.

(375) SENATOR LAUTENBERG: When in FY 1994 do you expect to take delivery of the first BUSL? How does that compare to your original target date for delivery of the first BUSL when this program was first funded?

ADMIRAL KIME: We anticipate delivery of the first preproduction BUSL in the fourth quarter, FY94, which is approximately one year later than originally expected. When the project was approved at Key Decision Point 1 in September 1991, first boat delivery was scheduled for fourth quarter FY93. Schedule differences are attributed to: (1) later than anticipated contract award; (2) use of the contractor's actual (and longer) design and construction schedule rather than the government's original estimated schedule; and (3) early contractor design integration problems which now appear to have been resolved.

ACQUISITION OF THIRD POLAR ICEBREAKER

(376) SENATOR LAUTENBERG: In regard to the polar icebreaker acquisition project, what portion of the $329 million provided in DOD SCN funds do you expect to obligate by the close of FY 1993? Please provide an obligation schedule for the SCN funds for the life of the program, as newly configured.

ADMIRAL KIME: The icebreaker is currently in the source selection phase, and we anticipate the Navy awarding the design and construction contract during 4th Qtr, FY1993. The total amount obligated in FY 1993, and the outyear schedule, will not be available until after the contract is awarded. The Navy will provide a projected schedule of outlays for the project after the contract is awarded.

(377) SENATOR LAUTENBERG: When do you expect to award a contract for the icebreaker?

ADMIRAL KIME: The Coast Guard will not award the icebreaker contract. The Navy has primary responsibility for the icebreaker procurement and administration of icebreaker funding as it was appropriated to the Ship Construction, Navy (SCN) budget. The Navy's source selection process is on schedule to exercise an option for detail design and construction of the icebreaker to either Ingalls Shipbuilding Inc. or Avondale Industries Inc. in the 4th Qtr, FY 1993.

(378) SENATOR LAUTENBERG: You stated in the Senate Hearing Record last year that "With the possible exception of the propulsion plant, technical risks associated with the requirements for this ship were, and remain, very low." The Coast Guard's past problems with the Polar Class main propulsion system have been well documented.

Given the Coast Guard's past history with icebreaker propulsion systems, what assurance is there that this new icebreaker will not be similarly operationally constrained and plagued throughout its life by mechanical problems?

ADMIRAL KIME: The CGC POLAR STAR and POLAR SEA have a gas turbine powered controllable pitch propeller propulsion system which is unique in icebreaker applications in the world. The new polar icebreaker will use a proven diesel-electric cycloconverter fixed pitch propulsion system which is typical of icebreakers currently built worldwide.

(379) SENATOR LAUTENBERG: Is all of the design and construction technology to be incorporated in the icebreaker of a proven nature?

ADMIRAL KIME: Yes, all of the design and construction technology to be incorporated into the new icebreaker is proven and typical of icebreakers and/or oceanographic research ships built recently and in operation worldwide.

(380) SENATOR LAUTENBERG: What measures are you taking to ensure the newly built icebreaker is free of design problems?

ADMIRAL KIME: The Navy awarded contracts to two qualified and competent shipyards (Ingalls Shipbuilding Inc. and Avondale Industries Inc.) to develop Engineering Design Baselines (EDBs) describing how they each would build an icebreaker meeting the government's needs. Development of the EDBs was monitored by an on-site Coast Guard/Navy Specification Reading and Review Conference (SRRC) team for five months to ensure that each shipyard understood the government's requirements, and to refine the Specification of Requirements (SOR), as necessary to ensure that the icebreaker will be constructed to its designed requirements. After the option for detail design and construction is exercised, the winning shipyard's efforts will continue to be monitored by a Coast Guard/Navy staffed Project Manager Representative Office (PMRO) functioning as part of the Navy's Supervisor of Shipbuilding (SUPSHIP) assigned to administer the contract.

(381) SENATOR LAUTENBERG: Does the Coast Guard have an opportunity under the bid evaluation process to evaluate the proven capability in the field of each design submitted with the proposal or are you constrained to only compare the price and adherence to specifications of each bid proposal?

ADMIRAL KIME: Neither the Coast Guard nor the Navy will have the opportunity to evaluate each design "in the field". The Navy awarded contracts to two shipyards to produce Engineering Design Baselines (EDBs) indicating how they would build the icebreaker to meet the government's requirements. The option to build the icebreaker is included in the contract with each shipyard. Exercising the option with the winning shipyard will be based on evaluation of the shipyard's proposal that represents the best value to the government. The evaluation criteria, as published in the Request for Proposals, includes the offerors' Technical Approach, Logistics Approach, Management Capability, Resource Availability, and cost, to ensure that the proposed design meets the Specification of Requirements.

(382) SENATOR LAUTENBERG: Please provide an accounting of those funds and resources obligated to date in this icebreaker procurement. Please identify Coast Guard and Navy funds separately. What is the level of unobligated balances at this time? What funds are still required to ensure continuation of the icebreaker procurement project? Please justify.

ADMIRAL KIME: Table A identifies the obligation status of the Coast Guard Acquisition, Construction and Improvement (AC&I) funds appropriated to date. Table B identifies the obligation status of the Department of Defense (DOD) Shipbuilding and Conversion, Navy (SCN) funds appropriated to date.

TABLE A - COAST GUARD AC&I OBLIGATION STATUS (IN THOUSANDS)

FY	EXPIRE	APPROP	TRANS-FERS	AVAIL-ABLE	OBLIG/ EXPEND	REMAINS UNOBLIG
87	9/30/91	150	300	450	450	0
88	9/30/92	2000	(1550)	450	450	0
89	9/30/93	1000	(250)	750	750	0
90	9/30/94	498	0	498	498	0
92	9/30/96	8500	(1250)[1]	7250	2079	5171
93	N/A	0	0	5171	3461	1710

NOTE 1: FY93 Congressionally mandated reprogramming

TABLE B - NAVY SCN OBLIGATION STATUS (IN MILLIONS)

FY	EXPIRE	APPROP	TRANS-FERS	AVAIL-ABLE	OBLIG/ EXPEND	REMAINS UNOBLIG
90	9/30/94	329.0	(54.2)[1]	274.8	0	274.8
89	9/30/93	0	59.0[2]	59.0	1.1	57.9
92	9/30/96	5.1[3]	0	5.1	0	5.1

TOTAL: 337.8

NOTE 1: Reflects $50 million reprogramming authorized by Congress in the Dire Emergency Supplemental Act of 1990 and a $4.2 million G-R-H reduction.
NOTE 2: Reflects $59 million of prior year funds appropriated by transfer.
NOTE 3: Reflects additional $5.1 million appropriated for adjustments to contract escalation.

DOD SCN funds where appropriated for costs associated directly with the contract for detail design and construction of the icebreaker. A portion of the funds have been used for Phase I of the contract for the detail design and construction of the icebreaker, and a portion for Government Furnished Equipment (GFE).

Coast Guard AC&I FY93 and FY94 funding levels are based on an interim acquisition plan for a 4th Qtr FY93 award. FY92 funds are being carried forward to combine with anticipated FY94 funds ($3.7 million) to meet minimum requirements for contract administration during the remainder of FY93 and FY94. Contract items which cannot be funded with SCN funds are being deferred until FY95 funds are available. Project administrative costs for FY95 thru FY99 are estimated at $23.4 million.

(383) SENATOR LAUTENBERG: Please provide future year funding estimates and the revised procurement/construction schedule for the 3rd polar-class icebreaker.

ADMIRAL KIME: Any adjustments to DOD's currently appropriated Ship Construction, Navy (SCN) funding levels will be limited to changes in projected escalation costs and will be requested by the Navy in their budget submittal.

Projected Coast Guard Acquisition, Construction and Improvement (AC&I) funding requirements (in millions of dollars) are as follows:

FY 93	FY 94	FY 95	FY 96	FY 97	FY 98	FY99
0	3.7	10.4	5.0	5.2	2.35	0.5

The key events in the revised procurement/construction schedule for the 3rd polar-class icebreaker are as follows:

Mission Needs Statement (MNS) Approved	July 1985
Coast Guard Acquisition Paper (AP) Approved	July 1985
Memorandum of Agreement (MOA) with Navy Signed	Apr. 1990
Milestone II (Navy)	Aug. 1991
1st Request for Proposals Cancelled	Mar. 1992
Navy AP Approved/Last Revision	Oct. 1992
Phase I Contract Awards	Nov. 1992
Phase II Down Select/Option Award	4th Qtr FY 93
Delivery/Acceptance	FY 98

ICEBREAKER OPERATIONS

(384) SENATOR LAUTENBERG: With tight operating schedules, have the two polar class icebreakers been able to meet operational commitments while leaving sufficient time and flexibility for carrying out the reliability improvement project and the MCAM project? Are any future problems anticipated that would create difficulties in the phased obligation of funds for these projects?

ADMIRAL KIME: We have been able to meet science mission schedules while allowing adequate maintenance periods. Our polar icebreaker operating schedule was developed to meet customer needs while providing sufficient time and flexibility for carrying out the reliability and improvement project and MCAM. I do not anticipate problems in the out years in meeting the phased obligation of funds for these projects.

(385) SENATOR LAUTENBERG: Please provide a deployment schedule for both polar class icebreakers indicating when RIP and MCAM work will take place. Please describe how, if at all, this schedule will be less than ideal, given operational/mission requirements.

ADMIRAL KIME: The schedule for the polar icebreakers is provided below. We are able to meet the present needs of the science community while allowing sufficient schedule time to complete the necessary maintenance and improvement projects for the polar icebreakers.

Ship	Mission	Dates
Polar Star	Arctic West 94	17 Jul 93 - 15 Oct 93
	MCAM Installation	15 Oct 93 - 20 Aug 94
	Ice Trials	21 Aug 94 - 30 Sep 94
	Inport Maintenance	Oct 94 - Nov 94
	Deep Freeze 95	Nov 94 - Apr 95
	RIP/Maintenance	Apr 95 - May 96

Ship	Mission	Dates
Polar Sea	Northeast Water Polynya 93 (North of Greenland)	10 Jun 93 - 29 Sep 93
	Inport Maintenance	29 Sep 93 - 15 Nov 93
	Deep Freeze 94	15 Nov 93 - 7 May 94
	Inport Maintenance	May 94 - Jul 94
	Deep Arctic Probe	Jul 94 - Sep 94
	MCAM Installation	Oct 94 - Apr 95
	Inport Maintenance	May 95 - Jun 95
	IAOE 95 (International Arctic Oceanographic Expedition)	Jun 95 - Oct 95
	Inport Maintenance	Oct 95 - Nov 95
	Deep Freeze 96	Nov 95 - Apr 96
	RIP	Apr 96 - Feb 97

MCAM REPROGRAMMING

(386) SENATOR LAUTENBERG: Please describe what has been accomplished to date since the reprogramming of funds in FY 1993 for the polar class replacement main propulsion monitoring and control system (MCAM)? What accomplishments do you anticipate in the next five quarters for this project, assuming full funding for your 1994 request?

ADMIRAL KIME: Since receiving the authority to reprogram FY 1993 funds in early June, we have settled the first six of the seven claims made by the contractor, TANO Marine Systems, for an amount of $2,250,000. A Contracting Officer's final decision is being drafted on the last claim which deals with Defective Specifications/ Government Furnished Information in the production phase. TANO Marine has advised us that they intend to litigate this final claim. We have also issued a unilateral schedule modification to clearly re-establish the installation dates. The contractor has not responded with a request for equitable adjustment for the new schedule.

In the next five quarters, we expect to complete both the parallel and full installation on POLAR STAR, complete sea trials on POLAR STAR and begin the full installation on POLAR SEA.

(387) SENATOR LAUTENBERG: Will all funds requested for reprogramming in FY 1993 and for funding in FY 1994 be obligated by the close of FY 1994? If not, what amount do you expect to be unobligated?

ADMIRAL KIME: By the end of FY 1994, all project funds will be obligated except a small portion of the funds budgeted for potential installation changes on the POLAR SEA, approximately $150,000. These funds should be obligated almost immediately in FY 1995 as POLAR SEA's installation is scheduled to begin in October 1994.

(388) SENATOR LAUTENBERG: What amount of the $6.5 million in FY 1993 and FY 1994 resources do you anticipate will be made available to TANO Marine for delay and disruption charges? What amount of funds already appropriated prior to 1993 for this project has gone to TANO Marine for delay and disruption charges?

ADMIRAL KIME: We requested $6 million in resources for the completion of the MCAM project; $3 million in FY 1993 reprogammed funds and $3 million in the FY 1994 budget request. Of these funds, we have paid approximately $500,000 in claims related to disruption charges in the six contractor claims settled to date.

$1 million of the FY 1993 and FY 1994 resources is budgeted for costs associated with potential changes to the installation schedule, which may include delay and disruption costs.

None of the funds appropriated prior to FY 1993 have gone to TANO for delay and disruption charges.

(389) SENATOR LAUTENBERG: When, if at all, should we expect a communication from the Secretary regarding delay and disruption charges as requested in the Senate subcommittee's response to the Secretary's reprogramming request for this project?

ADMIRAL KIME: We will provide you with a report in September 1993 that includes the status of delay and/or disruption charges incurred on the MCAM contract plus any new information on potential delay and disruption liability that the Coast Guard may incur. Final resolution of liability for any delays in the MCAM contract is expected to be a complex process involving application of detailed contract laws, precedent cases, and measures of reasonableness. We will then provide at least semiannual updates until all issues are settled.

HH-60J OPERATIONAL FLIGHT SIMULATOR

(390) SENATOR LAUTENBERG: In regard to your HH-60J OPBAT helicopter acquisition project, please describe in greater detail the schedule slips that have resulted in the operations of your HH-60J simulator.

ADMIRAL KIME: The contract award date was December 1989. On 3 January 1990 the award was protested. The contract was restarted 22 February 1990 after resolution of the protest in the government's favor. The original delivery date of 20 November 1992 was extended to 29 January 1993 as a result of this protest. The first significant slip in schedule occurred January 1992 when the contractor slipped Test Readiness Review (TRR) four months. This is a milestone event which is used to determine readiness to enter hardware/software integration (HSI). HSI was started by the contractor in May '92 with a scheduled completion in October '92. The trainer is still in HSI. The contractor underestimated the amount of time required for hardware/software integration, the amount of time required to integrate government furnished equipment, and the processing power required in the main computer. The contractor then provided a new, more powerful main computer that required a rehost (software loading) effort that added additional time. The new computer was provided at no cost to the government. The Navy, with Coast Guard involvement, recently renegotiated the delivery schedule consistent with the level of effort remaining. The current schedule calls for a 4th QTR FY94 delivery.

(391) SENATOR LAUTENBERG: Are Coast Guard pilots currently being trained on the simulator? If not, when do you expect the simulator to be in full use? Are Coast Guard pilots using an alternative simulator? If so, where?

ADMIRAL KIME: Coast Guard pilots are not currently trained using an HH-60J simulator, either by the Coast Guard or an alternative source. The simulator contractor now estimates delivery in 4th Qtr 1994.

(392) SENATOR LAUTENBERG: Who is the primary contractor for the simulator?

ADMIRAL KIME: The primary contractor for the simulator is AAI/Systems Management Inc., Hunt Valley, MD.

(393) SENATOR LAUTENBERG: Why has the operation of the simulator lagged so far behind the initial request for funding for a building to house the simulator?

ADMIRAL KIME: The simulator prime contractor failed to maintain schedule. Completion of the building was originally scheduled to coincide with shipment of the simulator to the site.

(394) SENATOR LAUTENBERG: What unanticipated additional costs were incurred by the Coast Guard as a result of the funding adjustment made necessary by the delay of the contractor?

ADMIRAL KIME: The Coast Guard has incurred additional support cost of approximately $400 thousand for services provided by the Naval Training Systems Center as well as the Naval Air Test Center. We have also incurred the cost of operating a fourth HH-60J at the aviation training command until delivery of the simulator.

(395) SENATOR LAUTENBERG: How has the Coast Guard succeeded in its training requirements to date without the use of the HH-60J simulator?

ADMIRAL KIME: The Coast Guard has used a fourth HH-60J at the Aviation Training Center in Mobile, AL, to support the number of flight hours required for training. The HH-60J pilot training curriculum was modified to provide the basic level of training necessary for the pilots to safely operate the aircraft. They then receive extensive additional training at their respective air stations. Extremely demanding maneuvers and hazardous malfunctions are discussed in depth in this modified curriculum; however, these maneuvers can not be practiced until the simulator is operational.

(396) SENATOR LAUTENBERG: What has been the actual contract costs for the last 3 HH-60Js contracted for, and what are your estimated contract costs for the remaining 3 aircraft requested in FY 1994? Please break out costs of the aircraft versus spares and logistics support.

ADMIRAL KIME: The information follows:

FY92 procurement for three aircraft:

11,530,807	each aircraft
2,000,000	GFE each to production line
202,944	One third of 608,832 for Integrated Logistics Support (ILS) & Logistics Support Analysis (LSA)
28,681	One third of 86,044 for Reliability & Maintainability Program
1,700,000	Coast Guard projected life-cycle spares support
15,462,432	TOTAL
	Note: ILS & LSA costs are Coast Guard share of joint Navy/USCG program

FY93 procurement for one aircraft:

14,644,372	for basic aircraft
2,000,000	GFE to production line
432,068	for ILS & LSA
21,747	Reliability & Maintainability Program
1,700,000	Coast Guard projected life-cycle spares support
18,818,187	TOTAL
	Note: ILS & LSA costs are Coast Guard share of joint Navy/USCG program

FY94 (ESTIMATED) procurement of three aircraft based on FY92 procurement of three aircraft:

11,530,807	each aircraft
2,000,000	GFE each to production line
202,944	608,832/3 for ILS & LSA
28,681	86,044/3 for Reliability & Maintainability Program
1,700,000	Coast Guard project life-cycle spares support
15,462,432	TOTAL
	Note: ILS & LSA costs for Coast Guard share of joint Navy/USCG program

(397) SENATOR LAUTENBERG: Please provide an update on any efforts to enable the Coast Guard to utilize Army Blackhawk helicopters for the OPBAT mission. What conversations have taken place with the Army? What has been the Army's receptivity to this proposal? What support does this proposal have within the Coast Guard? When, if at all, will any decisions be made?

ADMIRAL KIME: The Coast Guard is not pursuing the UH-60 Blackhawk alternative because of the non-availability of Army helicopters, the high cost of modifying the Blackhawk for Coast Guard use, and the expected high cost of supporting the UH-60. The Coast Guard asked the Department of Defense to consider the feasibility of making UH-60 Blackhawk helicopters available for Coast Guard use for the OPBAT mission. The Office of the Department of Defense Coordinator for Drug Enforcement and Support responded in a letter dated October 22, 1992 that the loan of Blackhawk helicopters was not feasible. Moreover, the letter documented the high maintenance costs incurred by the Army in operating non-marinized UH-60s in a salt water environment. The Coast Guard remains concerned over the issue of modification costs, corrosion, additional training and support costs, and the additional infrastructure that would be necessary to use the UH-60 Blackhawk for the OPBAT mission. The Department of Transportation has been briefed extensively on this issue. After a thorough investigation into the feasibility of using UH-60 Blackhawks for the OPBAT mission, we have determined that Coast Guard use of UH-60s are not a cost effective or viable alternative.

HH-65 AND HU-25 SIMULATORS

(398) SENATOR LAUTENBERG: In regard to your request for HH-65 helicopter and HU-25 fixed wing simulator upgrade, when did the Coast Guard initiate operation of these two simulators? Why wasn't the need for additional computer memory anticipated when these simulators were first contracted for?

ADMIRAL KIME: The Coast Guard iniated operation of the HH-65 helicopter and HU-25 fixed wing simulators in 1982. The computers are 1977 vintage systems designed for motion based simulation. The manufacturer will no longer support the computers after 1995 and replacement parts may not be available.

The simulator system was procured with the new HH-65A helicopter and HU-25 fixed wing aircraft. Both aircraft and simulator acquisitions were new and nearly simultaneous. Consequently, the Coast Guard had no base to compare simulator to aircraft performance characteristics. Initially the simulator computer supported the visual and motion system software applications within the existing capacity. Later modifications were added to the software to keep pace with aircraft upgrades and to better match aircraft performance and handling. The accumulation of software changes has saturated the memory and slowed calculation time reducing simulator response.

(399) SENATOR LAUTENBERG: Will the HH-60J simulator have adequate computer memory for your uses, or will that also need an upgrade at some future date?

ADMIRAL KIME: The HH-60J simulator contract requires a 50% excess in Central Processing Unit (CPU) capacity to accommodate future growth. At this time neither computer CPU capacity nor memory is anticipated to be a reason for a future upgrade.

HH-65 AND HU-25 SIMULATORS

(400) SENATOR LAUTENBERG: Are either the HH-65 or HU-25 simulators not performing as initially planned when contracted for? If so, how?

ADMIRAL KIME: Both simulators have had noticeable performance degradation since they were procured. As the experience base of HH-65 and HU-25 pilots developed, noticeable differences in actual aircraft response and simulator response were documented, especially in the slow speed range regime in the HH-65 helicopter. Pilots were over-controlling due to simulator lag and developing negative training habits. The visual system was intended to teach shipboard landings, boat hoisting, and hovering techniques. Such maneuvers require detailed visual cues that have been unsuccessful in the HH-65 simulator.

Continued supportability of the computers is a maintenance concern for the Coast Guard. The system has experienced outages and as it gets older, more frequent failures are expected. When the simulator is down for repairs, training is delayed and additional TAD costs are incurred. The simulators have proven to be effective and efficient training devices. They provide critical emergency procedure training that cannot be conducted in the aircraft, improve instrument flying skills, and reduce initial training time in the aircraft. Pilots receive annual instrument checks and proficiency training in the simulator, saving more expensive aircraft time for operational missions.

HH-65 HELICOPTER TRANSMISSION GEARBOX UPGRADE

(401) SENATOR LAUTENBERG: In regard to your request for HH-65 helicopter transmission gearbox upgrade, you state in your budget that, "In the past three years, 67 MGB overtorques have occurred." You go on to describe the solution as, "The planetary gears, vertical shaft and ring gears of the MGB will be replaced to convert an N-1 MGB to an N-2 MGB. The N-2 upgrade will be scheduled during the mandatory 3,000 hour N-1 MGB overhaul cycle, and 'on demand', due to overtorques."

Please describe the above mentioned problem and description of solution in English, using layman's terms. Also, please completely rewrite the AC&I budget sheet for this line item in a fashion so that a non-aviator might understand it.

ADMIRAL KIME: Similar to most helicopters, the HH-65 engines are able to provide more power than the Main Gear Box (MGB) is rated to handle. Hovering requires more power than virtually any other helicopter maneuver, especially when the helicopter is heavy with fuel or payload, or when the air temperatures are hot. The difference between the power required to hover and the gearbox's maximum allowable power (torque) is called the "margin". Exceeding this margin is a contributing factor to the 67 MGB overtorques. The present MGB is referred to as an N-1 configuration. The gears and shafts being replaced will upgrade the MGB to an N-2 configuration. The N-2 gearbox, with stronger gears and shafts, can accept more engine power, thus it is considered to have a higher torque limit. This will increase the margin between power required to hover and the maximum torque limit which will significantly reduce the number of removals of MGB's for overtorques. Converting the MGB is a labor intensive evolution and will be scheduled in conjunction with the mandatory MGB overhaul at 3,000 operating hours since the last overhaul or when the MGB requires other maintenance requiring removal from the helicopter (originally referred to as "on demand").

FISCAL YEAR 1994	ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS

PROJECT TITLE	NEAREST CITY & CONGRESSIONAL DISTRICT	AMOUNT REQUESTED
HH-65 HELICOPTER - TRANSMISSION GEARBOX UPGRADE	VARIOUS	$4,500,000

Reason for Request: Provide funding to initiate a phased upgrade/replacement of the HH-65 Main Transmission Gearbox (MGB).

Description of Problem or Need: In order to offset the extra weight added by the rescue swimmer (required by Public Law 98-557) we were forced to reduce the fuel load on HH-65 helicopters by 225 lbs, operationally reducing the HH-65's SAR range from 150 nm to 120 nm.The HH-65A was routinely operating at maximum power prior to the implementation of the rescue swimmer program and reducing weight was the only alternative available to accommodate the rescue swimmer.

Also, similar to most helicopters, the HH-65 engines are able to provide more power than the Main Gear Box (MGB) is rated to handle. Hovering, an essential mission capability, requires more power than virtually any other helicopter maneuver, especially when the helicopter is heavy with fuel or payload, or when the air temperatures are hot. On hot days, or with a HH-65 that is heavy with fuel or crew, any incremental change in conditions like a wind gust or a hoist requirement can demand engine power outputs over the transmission torque limits causing damage to the MGB. An extreme overtorque can result in a mission being aborted. To prevent this from happening, the pilot must severely limit his use of engine power and focus more on monitoring MGB torque than would otherwise be required, degrading mission safety, often times during the most demanding maneuvers a helicopter performs. Pilot workload and stress is increased during hover and hoisting operations due to the lack of available MGB torque.

Description of Solution: Increase the power of the HH-65A helicopter to allow for 225 lbs additional weight plus a greater margin between power required to hover and the maximum torque limit than currently exists. This increase will be accomplished by replacing internal parts of the MGB, planetary gears, vertical shaft and ring gears.The present MGB is referred to as an N-1 configuration. The gears and shafts being replaced will upgrade the MGB to an N-2 configuration. The N-2 gearbox, with stronger gears and shafts, can accept more engine power, thus it is considered to have a higher torque limit. The N-2 upgrade will be scheduled during the mandatory N-1 MGB overhaul cycle, which is necessary every 3000 operating hours, or when damaged gearboxes require special repair. The conversions will occur over a four-year time frame.

Benefits: SAR operational range will be restored to 150 nautical miles.Pilot workload and stress will be lowered during hover and hoist operations, one of the most hazardous helicopter missions. Approximately $60,000 per year in unscheduled maintenance expenses due to MGB's damaged during overtorques will be avoided.

IMPACTS ON OPERATIONS AND/OR MAINTENANCE STAFFING (NON AC&I FUNDED)

	OFF	WRNT	ENL	CIV	TOTAL
CURRENT	NOT APPLICABLE				
PLANNED	NOT APPLICABLE				

APPROPRIATION HISTORY

PROGRAM	YEAR	AMOUNT($000)

SUMMARY ($000)

AMOUNT OF THIS REQUEST	4,500
ESTIMATED FUTURE COST NEXT 4 YEARS - THIS PROJECT	8,300
ESTIMATED FUTURE COST NEXT 4 YEARS - THIS FACILITY	---

COST ESTIMATE OF WORK TO BE FUNDED THIS YEAR

ITEM NO.		MEASURE	QTY	ESTIMATED COST ($000)
1.	HH-65 N2 MGB hardware/installations	EA	61	4,500

DEPT. OF TRANSP., USCG. CGHQ-4265 (REV. 6-90)
(PF G-CPA)

(402) SENATOR LAUTENBERG: What, if any, operating and maintenance cost benefits should we expect with the replacement of the transmission gearboxes? Should one consider the faults of the current transmission gearbox arrangement to be yet another fault with the design of the HH-65 helicopter?

ADMIRAL KIME: The most significant benefits of the N-2 gearbox upgrade are not for maintenance, but for enhanced operational capability and safety. The congressional requirement to carry a rescue swimmer necessitated a two hundred (225) pound decrease in fuel to remain within maximum aircraft weight limitations. This caused a corresponding 30 nautical mile reduction in the HH-65's radius of action. The N-2 gear box will increase the HH-65 maximum allowable aircraft weight by (225) pounds which restores the helicopter's radius of action to the mission requirement of 150 nautical miles.

From a safety aspect, the increase in torque margin permitted by the upgraded N-2 gear box, when operating at high aircraft weights, relieves pilot workload in the all-weather Search and Rescue (SAR) and Law Enforcement (LE) environment in which the HH-65 operates, both day and night. The pilot's requirement to focus more on monitoring N-1 gear box torque instruments, due to the small margins for error, than would otherwise be required degrades mission safety during the most hazardous aspects of helicopter operations.

In addition to submitting this budget request we have been exploring engineering and design alternatives on the existing gear boxes to reduce the unscheduled maintenance costs associated with overtorques. First, we replaced the gear box torque measurement system to allow us to more accurately measure the overtorques. We challenged the manufacturer's suggested torque limits and contracted with him to validate them by conducting extensive metallurgical experiments on gearbox components. This resulted in a manufacturer's change to the gearbox performance parameters which increased the torque limits. Using the new limits, many of the gear box overhauls completed in the last three years would not have been required. We estimate that the additional torque margin of the N-2 gear box will reduce overtorque related maintenance by approximately one event per year at a cost avoidance of approximately $60,000 per year.

The current gearbox arrangement was not a design fault. The equipment performs as required by contract specifications. The weight increase from the addition of a rescue swimmer was not included in the original requirements because the program was not initiated until after the HH-65 was designed and deliveries had commenced. Upgrading the gearboxes during the scheduled 3000 hour transmission overhaul will cost less than modifying the acquisition contract or immediately retrofitting the aircraft with upgraded transmissions.

AUSTERE LOGISTICS AIRCRAFT

(403) SENATOR LAUTENBERG: In regard to your request for the austere logistics aircraft purchase, what percentage of flight time does this currently leased aircraft use in support of your drug law enforcement mission? Might a downsizing of your involvement in drug interdiction minimize the need for this aircraft? If so, how?

ADMIRAL KIME: Of the hours available for operations to date in FY93, 91% of the flight hours flown have been in support of the Alien Migration Interdiction Operations (AMIO) mission. 8.3% of the flight hours have been flown in support of drug law enforcement.

The purpose of the CASA aircraft is to provide logistics support for cutters conducting general law enforcement patrols in the Caribbean. A downsizing of the Coast Guard's role in drug interdiction alone would not likely reduce the need for this aircraft given the high demand for the cutters, which the aircraft logistically supports in several mission areas. Current demand for the aircraft far exceeds available programmed flight hours.

(404) SENATOR LAUTENBERG: What are the most common transit points for this aircraft? Might this aircraft have any other applications outside of the Seventh District for Coast Guard use? If so, where?

ADMIRAL KIME: The aircraft operates out of Coast Guard Air Station Miami, Opa Locka, FL. The primary destinations are Guantanamo Bay, Cuba, Matthewtown, Great Inagua, BF, and Air Station Clearwater, FL. There are a few other locations the aircraft transits to situationally.

The Coast Guard has not formally studied other potential usage areas for the aircraft as the demand for the aircraft in support of operational cutters in its current area of operations far exceeds the programmed flight hours. The Seventh District area of responsibility has the highest pace of operations, and most Atlantic Area cutter days and aircraft hours are spent in Seventh District waters. The geography of this area is unique, permitting forward based logistic support which is best provided by government aircraft for operational security reasons. In addition, commercial logistic service is oftentimes not reasonably available to the required destinations.

SURFACE SEARCH RADARS

(405) SENATOR LAUTENBERG: In regard to your request of $5.6 million for surface search radars, your budget justification cites the life cycle of the current radars at 15 years, while your quarterly acquisition reports make reference to a life cycle of 10 years. Which one is it?

ADMIRAL KIME: The current surface search radar was introduced into the Coast Guard in 1976 with a planned life cycle of 10 years.

(406) SENATOR LAUTENBERG: Will the $28 million cover the surface search radar requirements of all Coast Guard cutters? If not, which Coast Guard cutters will be receiving these radars?

ADMIRAL KIME: The total project cost of $33.6 million will not install new surface search radars on all Coast Guard cutters. Current project requirements call for installation of replacement radars on the following vessels as part of this project: WHEC-378 (12), WAGB-400 (2), WAGB-290 (1), WIX-295 (1), WMEC-270 (13), WMEC-210 (16), WLIC-160 (4), WPB-110 (49), WTGB-140 (9), and 6 Mature Class. Estimated cost includes required spares. The $28 million is the outyear (FY95-FY98) funding requirement for these installations. Vessels scheduled for decommissioning will not be equipped with the replacement radar. This radar system may be used in other projects which include VTS upgrades, VTS 2000, Navy B-Class radars, and new Coast Guard cutter construction projects. These other projects will request funding separately.

(407) SENATOR LAUTENBERG: Your quarterly acquisition report cites the cost risk of this project as high. Why is there such extensive cost risk associated with this project if you are procuring a "state of the market" system?

ADMIRAL KIME: "High Cost Risk" was indicated primarily due to the uncertainty of installation costs and sparing requirements. The cost of each radar system can be accurately determined and was validated by an independent cost estimate and market survey recently performed by the Federal Systems Integration Center (FEDSIM). Coast Guard budget estimates were comparable to FEDSIM's estimates. Installation costs remain uncertain due to the large variations that exist between the respective cutter classes, and in some cases, even within a class. In July 1993, a joint Coast Guard/Navy team will conduct a study to determine specific installation labor-hour requirements for each class of cutter.

(408) SENATOR LAUTENBERG: How much of the total program costs are attributable to installation costs versus the actual purchase of the radars?

ADMIRAL KIME: The total program costs are estimated to be $33.6 million, comprised of $17.8 million for radar equipment costs and $2.1 million for installation costs. The remainder of the funding is for spares, specialized maintenance equipment, training, documentation and testing.

(409) SENATOR LAUTENBERG: Given the high cost risk associated with this project, why do you want to procure 30 radar systems if you are also intent on conducting first article testing, engineering evaluations, and other efforts that are normally associated with pre-production runs of a procurement?

ADMIRAL KIME: The replacement radar will be required to interface with numerous other vessel systems such as the Shipboard Command and Control System and the Aids to Navigation Display and Recording System. Coast Guard and Navy experience has proven the value of conducting testing prior to fleet installations. Reliability testing will be performed on 24 radar systems, which will then be installed at the training centers. Radar systems will be installed in six cutters of various classes to develop drawings and installation packages necessary for the remainder of the fleet installations.

(410) SENATOR LAUTENBERG: Please describe in detail the acquisition plan for this project. Will this be a joint procurement with the Navy? Who will be the lead contracting agency? Why is it necessary for the Coast Guard to conduct its own first article testing and engineering evaluations? Might the Navy be conducting the same thing? Hasn't the Navy conducted extensive testing on many different radar systems?

ADMIRAL KIME: This is a joint Coast Guard/Navy acquisition project. The contract will be written, released and managed by the Coast Guard. The senior project manager and contracting officer will be provided by the Coast Guard. The Navy will provide a deputy project manager plus an appropriate number of technical personnel to support the procurement. The Specification, Statement of Work, Integrated Logistics Support Plan, Configuration Management Plan and Test and Evaluation Plan have been or will be jointly developed. The Navy has not tested navigation radars that could replace the AN/SPS-64 class radar. The USCG and Navy will jointly administer contractor system acceptance testing. The Source Selection Evaluation Board will be comprised of representatives from USCG and Navy. The Source Selection Authority will be the Vice Commandant of the Coast Guard.

(411) SENATOR LAUTENBERG: Are the radars likely to be purchased already existing in the Navy inventory? If so, why do any evaluations need to be conducted at all?

ADMIRAL KIME: The Navy currently has the same weather radar as the Coast Guard (AN/SPS-64), and has experienced similar problems of decreasing reliability and increasing support costs. The Navy does not have an inventory of other navigation radars. After experiencing contracting difficulties in procuring replacement parts, the Navy began investigating acquisition of a new, small radar system. Upon learning that the Coast Guard was well ahead of them in this effort, the Navy approached the Coast Guard with the request to form a joint acquisition to save time and resources.

(412) SENATOR LAUTENBERG: What is the minimum amount of funding that would be necessary to purchase sufficient radars for you to conduct your first article testing and engineering evaluations, if such evaluations are indeed necessary?

ADMIRAL KIME: The minimum funding required is $5.6M. This is not first article testing in the sense of a newly developed or prototype radar system. The initial radar systems are required for reliability testing and for installation in each class of cutter. The radars used for reliability testing will later be installed in the training centers. Technical drawings and installation packages will also be developed from these initial installation efforts. Additional tasks during this period include development of manuals, establishment of installation teams, and maintenance/operator training development.

(413) SENATOR LAUTENBERG: Please provide a detailed break-out of the $5.6 million requested in FY 1994, and how each increment of funding will be used for the purposes stated on your budget sheet.

ADMIRAL KIME: The following is a break-out of the $5.6M requested in FY94:

(1) Radar Systems for Reliability Testing	$2,808K
(2) Vessel Prototype Radar Systems	$1,030K
(3) Test Facility Setup	$500K
(4) Environmental Testing	$64K
(5) Reliability Testing	$44K
(6) Manual Development	$500K
(7) Initial Training	$500K
(8) Installation Team Start-up	$200K
Total:	$5,646K

(1) $2.808M for 24 radar systems which will be used for reliability testing and later installation at the training centers.

(2) $1.03M for 6 radar systems. These systems will be installed on selected cutters and will be used to develop the installation drawings and instructions for the fleet installations. Components of the radar system acquired will generally be identical; however, each class of vessel will require a unique system configuration. Large vessels (such as 378' WHECs) will require several radar repeaters, a larger antenna, and a more powerful signal processor than a 110' WPB that may require only the basic system. The cost of each radar system will vary depending on the complexity and number of components.

(3) $500K for test facility setup. This is to establish and equip a lab for testing of the 24 test systems.

(4) $64K for environmental testing. Environmental testing will include the following tests: salt fog, water intrusion, shock, vibration, heat, cold, electromagnetic interference. Both X-band and S-band systems will be tested.

(5) $44K for reliability testing.

(6) $500K to develop and print operator and maintenance manuals for the fleet and for the training center.

(7) $500K for initial training. This will include training of the installation team, training of project engineers, and training for instructors.

(8) $200K for installation team start-up. Equipment, tools, meters and other items required to conduct ship installations.

(414) SENATOR LAUTENBERG: What is your current estimated cost for each radar system? What will be the new estimated cost if the Navy joins in this procurement?

ADMIRAL KIME: The estimated cost (not including installation or spares) for each radar system ranges from $97K for small vessels (WPB-110) to $207K for the High Endurance Cutters (WHEC-378). Cost savings realized from Navy participation will not be known until contractor bids are received.

CGC YOCONA RE-ENGINING

(415) SENATOR LAUTENBERG: What is the status of re-engining the YOCONA? Is the project on schedule? Were initial cost estimates still accurate? When will the project be completed?

ADMIRAL KIME: Procurement of replacement engines has been initiated. However, we have modified our original acquisition plan, and we are updating cost and schedule estimates.

We intended to procure new or reconditioned engines for YOCONA, but we located what we expect to be a less costly source. We found operational Fairbanks Morse diesel engines similar to the ones in CGC ACUSHNET in a Navy submarine that was being decommissioned. The Navy transferred the engines to us at no cost, and we intend to conduct a complete overhaul and modify the engines as required to fit YOCONA.

We will provide your staff with the new costs and milestones as soon as that information is available.

NATIONAL STRIKE FORCE EQUIPMENT ACQUISITION

(416) SENATOR LAUTENBERG: Please provide the acquisition schedule for the National Strike Force equipment funded in FY 1992 and requested in FY 1993. Are all contracts and deliveries on schedule? If not, why not? What amount of funding has been obligated to date? How much has been obligated through the end of 1993?

ADMIRAL KIME: The following is an acquisition, obligation and delivery schedule for National Strike Force (NSF) equipment.

ACQUISITION SCHEDULE

Item	Status/Date
FY 92 PROJECTS (NSF):	
Offshore Inflatable Boom	Deliveries began Feb 93
Vessel of Opportunity skimming System (VOSS)	Deliveries began Dec 92
Pumps Prime Movers	Deliveries began Oct 92
Low-bed Trailers	Deliveries began Sep 92
Collapsible Inflatable Barges	Deliveries began Feb 93
Dracone Off-loading Pumping System	Award by Aug 93
Flexible Dry Storage	Spec drafted June 93; award by March 94
Mobile Cranes	Spec drafted May 93; award by Feb 94
Telecommunications Equip Upgrade	Award by Sep 93
Skimming Barrier Pre-staging Equipment	Award by Sep 93
FY 93 PROJECTS (NSF):	
Enhanced V-Sweep Boom System	Spec completion Sep 93; award by May 94.
Oil Storage/Transport Bladders	Spec completion Oct 93; award by June 94.
Pollution Response Trailer/Van	Spec completion Sep 93 award by May 94

All contracts which have been awarded are on or ahead of schedule with the exception of Inflatable Boom for the Strike Teams which is three weeks behind schedule because of subcontractor is at maximum production capacity .

FUNDS APPROPRIATED		FUNDS OBLIGATED	
FY 92	$5.6 million	FY 92	$3.4 million
FY 93	$4.0 million	FY 93	0
Total	$9.6 million		

An additional $1.5 million of FY 92 funds are expected to be obligated during the 4th quarter of FY 93 for a total of $4.9 million obligated by the end of FY 93.

COAST GUARD STANDARD WORKSTATION

(417) SENATOR LAUTENBERG: Please update the committee on your program for the new generation of Coast Guard standard workstations. What amount of funding has been obligated to date? When do you again expect to request funding for this project?

ADMIRAL KIME: A total of $1,035,184 has been obligated in developing requirements and the documents necessary to issue the Request for Proposal (RFP). Traditionally, funding for standard workstations has come from the Coast Guard's funding base. This is anticipated to be the source of funding for general purpose "multi-mission" standard workstations in the future. AC&I funding for conversion of approximately 60 software applications that were developed by the Coast Guard to meet "mission critical" information requirements is needed starting in FY94 through FY98. The FY94 request of $2 million will provide for project initiation, one initial conversion, requirements development and high level design.

(418) SENATOR LAUTENBERG: What do you estimate to be the complete costs of all new Coast Guard workstations? What will be the cost per workstation for this replacement program? Please explain how you arrive at this figure.

ADMIRAL KIME: The information requested is competition sensitive at this time. We can provide you with specific cost information when the contract is awarded.

VIDS

(419) SENATOR LAUTENBERG: Has the RFP for the Mission Oriented Information System Engineering (MOISE) been published? If not, why not and when will it be published?

ADMIRAL KIME: The MOISE RFP has not yet been published. The RFP is presently under final review by Coast Guard contracting and legal representatives. Delays in publishing have resulted from: 1) time required to review comments from industry pursuant to the Request For Comment (RFC), 2) rework of the MOISE Statement of Work, and 3) review/rewrite of the MOISE Proposal Evaluation Plan. We expect to release the MOISE RFP late in the Fourth Quarter of FY93.

MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT

(420) SENATOR LAUTENBERG: Please provide an obligation schedule for funds previously appropriated for the Marine Information for Safety and Law Enforcement (MISLE).

ADMIRAL KIME: A total of $6.0 million has been appropriated to the MISLE project thus far, of which $1.0 million has been obligated for the development of the Marine Safety Network (MSN) modules. The remaining $5.0 million will fund MOISE contract tasks including the purchase of development hardware and software. We plan to award the MOISE contract 4th Qtr FY94.

(421) SENATOR LAUTENBERG: Please describe what efforts have been taken over the course of the last year to bring greater program definition and cost control to this project.

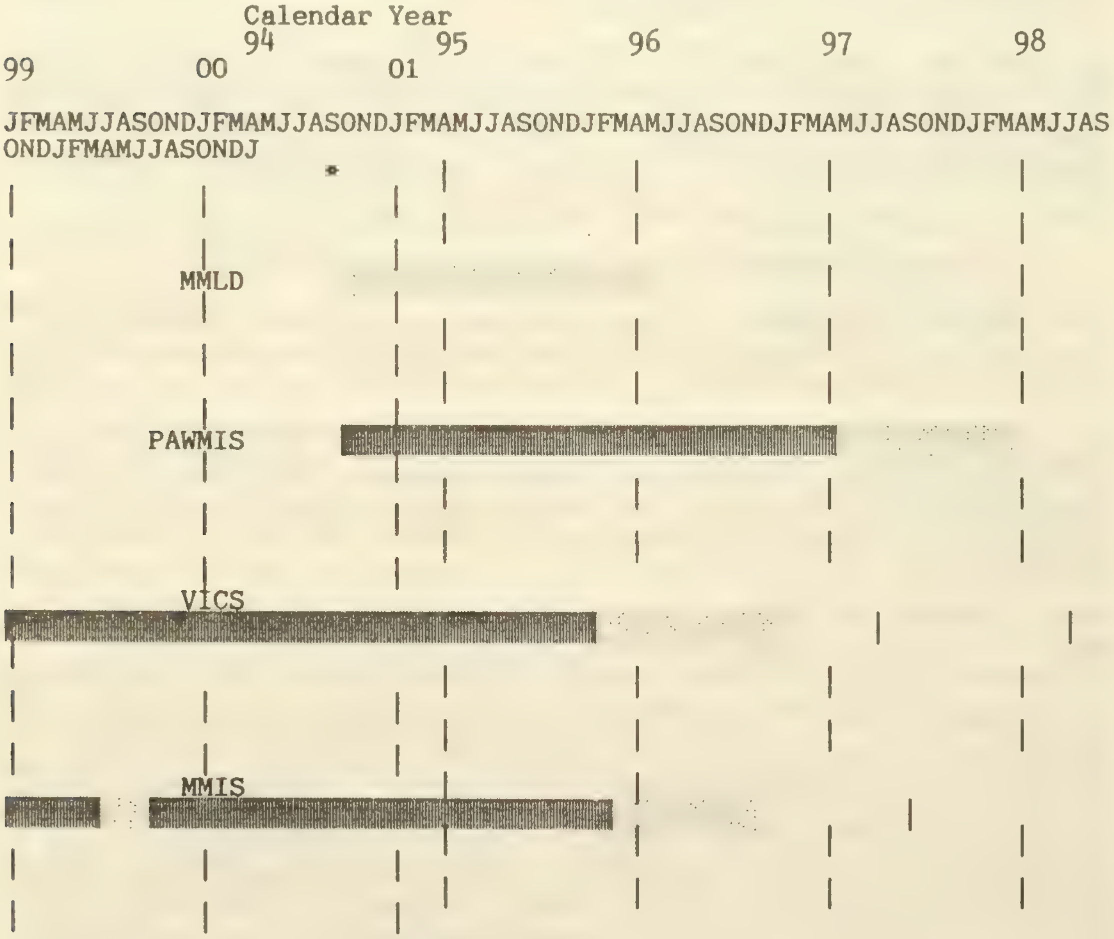
ADMIRAL KIME: The most important effort to stabilize and define the project was the establishment of the Marine Information for Safety and Law Enforcement (MISLE) Project Management team in the Office of Acquisition. This was initiated to more clearly define project requirements and to provide controls for both system development and costs. As a result, the Request for Proposals was reviewed and rewritten, and a pilot system was developed to examine the efficiencies of the proposed overall system architecture. To provide more cost control, all appropriated funding for the various modules was consolidated and placed under the control of the MISLE Project Manager.

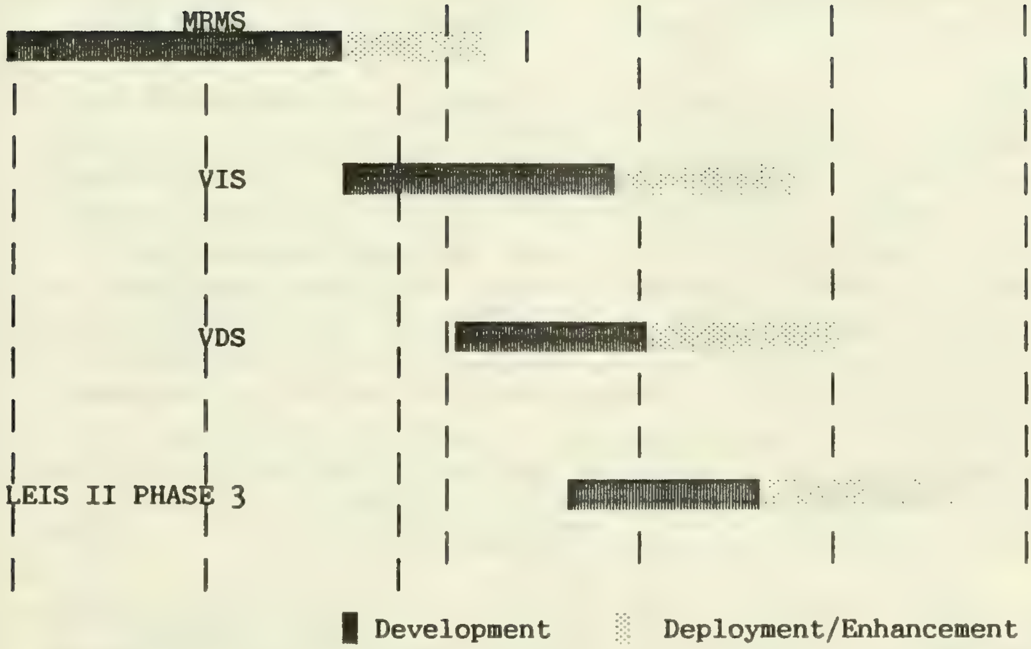
(422) SENATOR LAUTENBERG: How, if at all, does your deployment schedule for the several modules that comprise the Marine Information For Safety And Law Enforcement (MISLE) differ from that printed in the Senate report accompanying the appropriations bill for FY 1993? Please provide a new table, similar to that printed in the Senate report of last year, if any changes have occurred. Please explain what gave rise to these changes.

ADMIRAL KIME: The table below depicts the latest development/deployment schedule, by module, for the systems being developed in the MISLE Project: Marine Safety Network (MSN), Vessel Identification and Documentation System (VIDS), and Law Enforcement Information System II (LEIS II). Note that VIDS is comprised of two modules: Vessel Identification System (VIS) and Vessel Documentation System (VDS).

The table below uses the Mission Oriented Information System Engineering (MOISE) contract award date as the reference date. The overall schedule has been adjusted to evenly distribute the development and deployment of modules over the life of the MOISE contract. Phased deployment of the functions at a regular rate will assure progress towards system completion while minimizing any adverse impact to field operations and service to the public. Delays in contract award date have been caused by the time needed to stand up the major acquisition project staff, to review and incorporate industry comments from the Request For Comments (RFC) into the Request for Proposals (RFP), and to review and improve the MOISE Proposal Evaluation Plan under which the proposals will be evaluated.

MISLE Development/Deployment Schedule (6/93)





* Planned MOISE Contract Award 6/94

MMLD:	Merchant Mariners Licensing and Documentation System
PAWMIS:	Ports and Waterways Management Information System
VICS:	Vessel Inspection and Certification System
MMIS:	Marine Management Information System
MRMS:	"M" Resource Management System
VIS:	Vessel Identification System
VDS:	Vessel Documentation System
LEIS:	Law Enforcement Information System

RG-8 CONDOR AIRCRAFT ENGINES

(423) SENATOR LAUTENBERG: Please provide an update on your effort to provide a second engine on your RG-8 Condor aircraft. What amount of funds have been obligated to date? When will this engining project be completed?

ADMIRAL KIME: The design of the twin engine aircraft is nearing completion. The next step, Phase II, involves actual production. We have obligated $3,400,000 toward this project by transferring that amount of funding to the Air Force who will negotiate and manage the production contract for us. The project is scheduled for completion in early CY 95.

OBLIGATION OF VTS FUNDING

(424) SENATOR LAUTENBERG: At the time we marked up last year's appropriation bill, it was estimated that at the end of the fiscal year, you would obligate only 33 percent of the funds already appropriated for VTS projects around the country. What improvements have been made in your ability to spend the funds appropriated for VTS projects?

ADMIRAL KIME: Several factors have contributed to improving our ability to spend funds. The Coast Guard's planning process for the VTS program is farther along today than it was a year ago. Contracting personnel dedicated to the VTS project have enabled contracts to be put in place in a more timely manner. A previously existing Military Interdepartmental Purchase Request (MIPR) with the Navy has contributed significantly to the more timely obligation/expenditure of funds. The Navy is the System Integrator for the VTS Upgrade/Expansion project.

(425) SENATOR LAUTENBERG: Will the full $9 million appropriated for FY93 for new "VTS 2000" projects be obligated at the end of this year?

ADMIRAL KIME: We anticipate obligating approximately $5.6 million of the $9 million appropriated in FY93.

Congress directed that $3 million of the FY93 appropriation be used specifically in New Orleans for selection of radar and closed circuit television camera surveillance sites and establishment of administrative and support facilities. We are actively pursuing New Orleans site selection and development, but have obligated only a very small amount for this task to date. Preliminary site work involves surveys, environmental assessments and lease contract preparations which are very slow processes and relatively low cost functions. These efforts must be completed before substantial additional funding can be obligated for construction and equipment requirements.

Production of a national Vessel Traffic System requires extensive pre-production system and software development work. The majority of the FY93 and FY94 request is intended to fund this pre-production work in the areas of system engineering, contract support services, system integration and software development.

(426) SENATOR LAUTENBERG: What likelihood is there that you will be able to obligate the entire $32 million that you are requesting for VTS projects for FY 1994? What amount of the $32 million requested do you expect to be unobligated at the end of FY 1994?

ADMIRAL KIME: We anticipate obligating approximately $17 million of the $32 million requested for FY 1994. The entire $4.4 million requested for completion of the VTS Upgrade project and $12.6 million of the $27.6 million requested for the VTS 2000 project will be obligated. We expect that $15 million of the VTS 2000 request will be unobligated at the end of FY 1994.

Although we will not obligate all of the FY 1994 request in the first year, we are requesting funding for the first task order for software development under the System Integrator Contract. This task order is scheduled to be issued in the first half of FY 1995.

VTS 2000

(427) SENATOR LAUTENBERG: In regard to your request for resources for Vessel Traffic Service 2000, please provide a detailed accounting of all funds spent to date for the following VTS projects individually:

- VTS New Orleans, Louisiana
- VTS Los Angeles/Long Beach, California
- VTS Port Arthur, Texas
- VTS Mobile, Alabama
- VTS Corpus Christi, Texas

ADMIRAL KIME: The following chart provides the information requested. Most of the funds expended to date have been for system development that will support all ports, but is not attributable to specific ports.

($000)

	Site Survey	System Engineer	Contract Support	Survey & Design	Total
VTS New Orleans	$52	$37			$89
VTS Los Angeles/ Long Beach	$10				$10
VTS Port Arthur					-0-
VTS Mobile	$200*				$200
VTS Corpus Christi	$200*				$200
Total to Date:	$462	$37			$499

* OE funded supplemental site survey

(428) SENATOR LAUTENBERG: Is it understood at this time that Mobile, AL, and Corpus Christi, TX, will merit a full VTS system rather than some alternative navigation management scheme? If not, when will this question be addressed? When was this determination made? What portion of funding of the $27.6 million you are requesting in FY 1994 will go toward Mobile, AL and Corpus Christi, TX, as well as the other ports cited in your budget request?

ADMIRAL KIME: Based on the results of the Coast Guard's 1991 Port Needs Study, Mobile (including Pascagoula, Mississippi), and Corpus Christi merit the installation of a full Vessel Traffic Service (VTS) systems. This determination was based on a detailed cost-benefit analysis that revealed a positive life-cycle net benefit for both Mobile and Corpus Christi.

As a supplement to the Port Needs Study, the Coast Guard contracted with the Transportation Systems Center to perform a focused evaluation of Mobile and Corpus Christi. This OE funded study concentrated on site surveys and specific equipment requirements for each port. The results of this study were reported to the Coast Guard in June 1993 and indicate a full VTS in both Mobile and Corpus Christi is merited. Alternative navigation management schemes are not being considered in either port.

The majority of the FY 1994 AC&I request will provide system-wide pre-production engineering design and software development for the VTS 2000 system. This funding is not directly attributed or allocated to any particular port. Preliminary site work involves surveys, environmental assessments and lease contract preparations, all relatively low cost functions. The majority of funding attributable to specific ports will be obligated in FY 1995 when actual construction and installation commence.

The following chart provides a breakdown of the FY 1994 funding plan.

($000)

	LA/LB	New Orleans	Port Arthur	Corpus Christi	Mobile	Attributed To All Ports	Total
Site Survey			$33	$33	$34		$100
Site Acquisition & Construction	$1,000	$1,000					$2,000
System Engineer						$3,500	$3,500
Contract Support						$1,000	$1,000
System Integrator (Design, Software Development & Integration)						$21,000	$21,000
Total:	$1,000	$1,000	$33	$33	$34	$25,500	$27,600

VTS NEW YORK

(429) SENATOR LAUTENBERG: Please provide an updated status report regarding the progress in moving forward with Phase II and Phase III of VTS New York. Please provide detailed information regarding site acquisition, environmental permitting, etc.

ADMIRAL KIME: Phase II and Phase III expansions for New York were combined with the Vessel Traffic Center (VTC) upgrade into a single project. The VTC upgrade portion is scheduled to be completed during the fourth quarter of FY93 and the expansions during the fourth quarter of FY94. The Sandy Hook radar became operational in August 1992.

We are using a "rolling boundary" approach to expand geographic coverage of the VTS as rapidly as possible. Once a remote site is complete, it will be added to the system, and the area covered will then be monitored by the VTS. Geographic coverage will expand as each new site is completed. In effect, we will "roll out" the boundary of the VTS coverage incrementally as soon as each subsector is operational.

The environmental review process for all remote sites is complete. Lease agreements for all East River and Arthur Kill sites have been issued for signature. Two leases have been executed, site #1, Naval Reserve Center, Perth Amboy, and site #4, Cory Warehouse, Elizabeth, NJ. Amendments to the remaining leases have been negotiated as necessary. We expect the remainder to be executed by the end of the fourth quarter FY93. The sites we have selected are:

Arthur Kill
    Site # 1 Naval Reserve Training Center, Perth Amboy, NJ
    Site # 2 Public Service Electric and Gas, Sewaren, NJ
    Site # 3 Con Edison Generator Plant, Travis SI, NY
    Site # 4 Joseph Cory Warehouse Elizabeth Port, NJ
East River
    Site # 5 Pier K, Brooklyn Navy Yard Development Corporation
    Site # 6 Goodwill Industries Building, Astoria, NY
    Site # 7 NY State Psychiatric Hospital, Wards Island, NY
    Site # 8 Coca Cola Plant, Oak Point, NY
    Site # 9 Navy and Marine Corps Training Center, Fort Schuyler, NY

A contract for the fiberglass huts which will house remote site equipment was awarded 30 March 93. The first hut has been delivered to the Coast Guard Electronic Engineering Center (EECEN) for baseline configuration. Six other huts have been shipped to the Naval Air Warfare Center for outfitting.

Invitations for Bids and work orders for remote site construction are being issued on schedule.

(430) SENATOR LAUTENBERG: In past testimony, you have informed us that the $11.2 million provided for Phase II and Phase III expansions of VTS New York were sufficient to fully fund the project. Your budget request for 1994 now includes a $4.4 million request for cost overruns associated with VTS New York, VTS Puget Sound, and VTS San Francisco. What gave rise to these cost overruns?

ADMIRAL KIME: Additional funding is needed to complete the VTS Upgrade/Expansion Project due to increased costs in three major areas.

1) Projected labor costs for the System Integrator, (Naval Air Warfare Center, Patuxent River, MD), for software development and installation have increased $2.4 million above the initial estimate of $5.6 million.

2) Parallel Vessel Traffic Center (VTC) facilities are required at Puget Sound and San Francisco, increasing project costs by about $1.0 million. Lessons learned from the Puget Sound/Tacoma Expansion indicated that the original plan to remove/replace equipment in the VTC during daily ongoing operations was too disruptive. Existing spaces are being renovated for a "new" VTC. The "old" VTC will be converted back to administrative spaces after cutover is made.

3) Unanticipated increases in equipment costs such as the radar processor and video compression equipment also contributed to cost increases.

(431) SENATOR LAUTENBERG: Much of the schedule risk associated with the already-delayed Phase II expansion of VTS New York is related to your ability to successfully integrate all of the new software associated with this project. How successful have you been at integrating this software to date?

ADMIRAL KIME: All software has been delivered and all hardware has been installed. Ongoing software integration testing has uncovered a few problems. Our software integrator at the Naval Air Warfare Center is actively pursuing the problems, and we expect they will have minimal impact on project completion. We expect the system to be technically certified early in the fourth quarter, FY93. To reduce any schedule impact, final system acceptance testing and system training will be completed in parallel. The initial operating capability date of October 1, 1993 remains unchanged.

(432) SENATOR LAUTENBERG: Much of the schedule risk associated with the already-delayed Phase II expansion of VTS New York is related to your ability to successfully integrate all of the new software associated with this project. Do you still estimate the schedule risk for the expansion of VTS New York to be high?

ADMIRAL KIME: Yes, we still consider the overall schedule risk for the VTS New York expansion as high. Equipment delivery is proceeding on schedule and is not expected to be a concern. We are experiencing some integration problems as we anticipated. To mitigate these problems we will be performing acceptance testing and system training in parallel to prevent further delays in completion. We expect to meet the initial operating capability date of October 1, 1993.

High risk is also driven by remote site construction performed by contractors. Leases have been executed for two of the nine remote sites. Execution of the remaining seven leases are expected by 4th quarter FY93. Invitations for Bids and work orders for remote site construction are being issued on schedule.

(433) SENATOR LAUTENBERG: Has the Coast Guard conducted a human factors analysis at VTS New York as planned? If so, how has this analysis impacted upon the completion of Phases II and III of the VTS New York implementation project? If not, when will the analysis be conducted?

ADMIRAL KIME: The Coast Guard Research and Development Center awarded a contract in June 1993 to the Naval Submarine Medical Research Laboratory to conduct this human factors analysis. The period of performance for this contract is twelve months. A final report is expected in July 1994. The objective of this project is to understand the tasks and workload of VTS operators and to identify promising solutions to increase operator effectiveness. This analysis has no impact on the construction of remote sensor sites to expand surveillance and thereby extend the Area of Responsibility for VTS New York; otherwise known as Phases II and III.

VTS HOUSTON

(434) SENATOR LAUTENBERG: What progress, if any, has been made in upgrading the tracking system for VTS Houston? How have these efforts affected your funding requirement for resources for VTS Houston?

ADMIRAL KIME: The sub-contractor for the Vessel Traffic Service (VTS) Houston-Galveston tracking system has completed preliminary work to restore the computer operating system and repair workstation interfaces. The prime contractor must still load and test computer software changes to make the system operational and in compliance with the contract. The contractor is in the process of scheduling the completion of the project; projected completion date yet to be provided. Once the contractor has demonstrated the complete system's operability, it is expected that an Independent Operational Test and Evaluation of the entire system will be conducted to determine if it is acceptable for use. The contract will remain open until all requirements are met. We do not anticipate these efforts will affect funding requirements for VTS Houston-Galveston.

DGPS IN PRINCE WILLIAM SOUND

(435) SENATOR LAUTENBERG: Please update the status of and any preliminary results from your Differential Global Positioning System (DGPS) pilot project in Prince William Sound.

ADMIRAL KIME: The contract to establish automated dependent surveillance (ADS) using Differential Global Positioning System (DGPS) in Prince William Sound, Alaska, was awarded to Raytheon Company on August 31, 1992. Award was delayed significantly by several protests from unsuccessful bidders. The contract's original period of performance was 420 days, based on the presumption that we would award in the early spring. This would have given the contractor an installation period that spanned a summer-winter-summer season, allowing two periods of fair weather during which outside work could be done. Because the delayed award left the contractor with a winter-summer-winter time frame, they requested that the completion date be extended to July, 1994. We approved their request because it was justified in light of the harsh Alaskan climate, and it would also allow us additional time to upgrade Government-furnished electrical power and communications necessary to support the ADS technology. It was for these upgrades that we requested the Committee's approval for a reprogramming of AC&I funds.

We are satisfied with the progress being made at this juncture. We have every confidence that this system will be a success, and are examining the potential usefulness of this technology in other ports and waterways.

SYSTEMS TO AUTOMATE AND INTEGRATE LOGISTICS (SAIL)

(436) SENATOR LAUTENBERG: When will the manpower reductions, material inventory reductions, and other savings from the implementation of the SAIL project be reflected in the Coast Guard's budget estimates? Will these be provided as specific program reductions in the future budget estimates?

ADMIRAL KIME: Our current schedule for SAIL projects that the first significant savings will accrue between FY 1998 and FY 2000 if the program is fully funded.

We recently designated SAIL as a major system acquisition and moved project management to the Office of Acquisition. This could introduce a delay into the SAIL schedule. This move was made to bring greater program definition and cost control over this project similar to the actions we have taken in the Marine Information for Safety and Law Enforcement (MISLE) project.

COMMSTA AUTOMATION PROJECT

(437) SENATOR LAUTENBERG: What operating personnel reductions can be expected with the planned automation projects at Coast Guard communication stations, in addition to COMMSTA Miami, in future years? Please update the previous provided in January of 1993.

ADMIRAL KIME: This project will not directly result in personnel reductions. The COMMSTA automation project provides watchstanders with automated control of transmitters, receivers, and antennas, thus, providing potential for remote control operation of COMMSTAs in the future. It will also improve service to our maritime customers by reducing response time and providing quicker throughput for message traffic. In rebuilding COMMSTA Miami, the Coast Guard was able to automate, remote and consolidate critical communications services to Communication Area Master Station Atlantic (CAMSLANT) and thus reduce personnel. Coast Guard has initiated a project called COMMSYS 2000 that will allow further consolidation of communications facilities in the future to a single central facility on each coast. Completion of the COMMSTA Automation Project is essential to allow these communication services from other existing COMMSTAs to be remotely controlled. This will in turn allow future personnel reductions. The information in the January 1993 letter is current. Updates will be provided if the information changes.

MARITIME DEFENSE ZONE C^3I

(438)SENATOR LAUTENBERG: Have all funds appropriated for the Maritime Defense Zone C3I project now been reprogrammed? If not, what amount remains available?

ADMIRAL KIME: On May 12, 1993, the Secretary of Transportation forwarded to the Subcommittees on Transportation and Related Agencies in both the Senate and House of Representatives our request to reprogram the remaining $1.1 million appropriated to the Maritime

Defense Zone C3I project. The reprogramming action pends committee approval.

These project funds will expire on 30 September 1993. Contracts are in place to ensure immediate obligation as soon as approval notification is received.

AR&SC LOGISTICS SUPPLY SYSTEM

(439) SENATOR LAUTENBERG: Please update the project status of the modernization of the Aircraft Repair and Supply Center (AR&SC) logistics supply system.

ADMIRAL KIME: The information system is in the acceptance and implementation phase. Twenty percent of the system has been operating since April 1993. The system will be seventy percent operational by July 1993. The remainder will be implemented through a phased process during the fourth quarter of FY 1993. Completion is timed with the change of fiscal years to take advantage of a new accounting cycle. A new contract is scheduled for award during the fourth quarter of FY 1993 for the Phase IV AC&I funded merger of the supply system with the maintenance scheduling system to form an advanced logistics system. Completion is scheduled for FY 1995.

SOUTHEAST U.S. AIR FACILITY, MIAMI

(440) SENATOR LAUTENBERG: Please display a complete funding history of the SEUS-MIAMI project, citing the years funding was appropriated.

ADMIRAL KIME: The following list is a funding history of Southeast United States (SEUS) Air Interdiction Shore Facilities, which includes Air Station Clearwater, as well as Air Station Miami.

SEUS Phase I - Clearwater	FY 1989	$2,600,000
SEUS Phase II - Clearwater	FY 1990	$5,100,000
SEUS Phase III - Clearwater	FY 1992	$3,000,000
SEUS Phase IV - Miami Phase I	FY 1993	$8,000,000

The Coast Guard is requesting $8,200,000 in FY94 for Phase II of the Air Station Miami project, and anticipates requesting funds in FY96 and FY97 for Phases III and IV of the project.

(441) SENATOR LAUTENBERG: Please display a new construction schedule for this facility, and explain why there has been so many stops and starts in the progress of this facility.

ADMIRAL KIME: The following is the planned construction schedule to accomplish the replacement and improvement project at Air Station Miami:

		Construction	
		Award	Completion
Miami Phase I	Replace Fuel Farm	4th Qtr 93	1st Qtr 95*

*(One quarter slip since submission of March 1993 Quarterly Acquisition Report).

The Coast Guard also plans to complete the following projects according to this schedule:

		Construction	
		Award	Completion
Miami Phase II	Construct New HH65 Hangar	4th Qtr 94	2nd Qtr 96
Miami Phase III	Renovate HU25 Hangar	2nd Qtr 96	2nd Qtr 97
Miami Phase IV	Construct Admin/Physical Fitness Facilities	2nd Qtr 97	2nd Qtr 98

Initial project delays were a result of environmental issues which needed to be resolved and included in the project design. The facility improvements have been phased over the next several years to prevent severe disruption to the operation of the Air Staion.

(442) SENATOR LAUTENBERG: What amount of total funding made available do you expect to obligate in FY 1993? What amount do you expect to have unobligated at the end of FY 1993, FY 1994 and FY 1995?

ADMIRAL KIME: It is expected that $5,000,000 will be obligated in FY 1993 for the construction of the new fuel farm. The unobligated amount for FY 1993 is expected to be $3,000,000. This $3,000,000 represents the amount added to the FY 1993 budget to accelerate the installation of a fire deluge system in the existing hangar. The new HH-65 hangar to be funded in FY 1994 will include all the foam deluge system pumps and controls for both the new and existing hangar; hence installation of a fire deluge system in the existing hangar would be premature and would not result in an operational fire protection system. The FY 1994 budget request has been reduced by $3,000,000, from that needed to construct the new HH-65 hangar and the unobligated FY 1993 amount will be added to the $8,200,000 FY 1994 project for a total of $11,200,000. We plan to obligate virtually all FY 1993 and FY 1994 construction funds by the close of FY 1994. There is a possibility that some funds for outfitting, electronics, and construction contingencies may remain unobligated at the end of FY 1994; however, all funds are expected to be obligated by the end of FY 1995.

SHORE FACILITIES CONSTRUCTION CARRYOVER

(443) SENATOR LAUTENBERG: Please provide tables with the following data for shore facilities construction projects requested in fiscal years 1991 and 1992, as well as your most up-to-date estimates for fiscal years 1993 and 1994?

Please identify each facility and the amount requested for each facility where funds were requested in a given fiscal year, but no funds were obligated until the following fiscal year or later.

What percentage of the total dollars requested for shore facilities for that given fiscal year does the sum requested for these projects represent?

What percentage of the total number of shore facilities for which funds were requested in that given fiscal year does this number of facilities represent?

What was the total sum of funding appropriated for shore facilities for that given fiscal year that was carried over to the next fiscal year?

What percentage does this figure represent for the total dollars requested for shore facilities for that fiscal year?

ADMIRAL KIME: FY 1991 shore facilities construction projects for which there were no obligations in FY 1991 are:

Project Title	Funds Requested	% of Request
Air Facility Charleston*	$2,700,000	3.0
Yard Upgrade Mechanical Shops	$3,700,000	4.0
Yard Replace Portal Crane #2	$2,000,000	2.2
New York Health Care Facility	$7,600,000	8.4
Station Burlington	$3,500,000	3.8
Group Eastern Shore Renovation, Phase III	$4,200,000	4.6
Key West Vessel Support Facility	$1,200,000	1.3
Total	$24,900,000	27.3

*(Congressional initiative)

Our shore construction request (including survey and design) in FY 1991 was $91,000,000. These seven projects represent 41% of the seventeen projects for which funds were specifically requested; this does not take into account aggregated Shore AC&I line items such as Minor AC&I and Public Family Quarters. FY 1991 Shore AC&I funds carried over into FY 1992 totalled $37,200,000, or 41% of the FY 1991 request, and 33% of the $112,285,000 that was appropriated.

Our shore construction request (including survey and design) in FY 1992 was $105,050,000. FY 1992 shore facilities construction projects for which there were no obligations in FY 1992 are:

Project Title	Funds Requested	% of Request
MSO Houston/Reserve Building	$2,600,000	2.5

MSO Houston/Reserve Building is the only FY 1992 project for which no funds were obligated in FY92. This one project represents 5.6% of the eighteen projects for which funds were specifically requested; this does not take into account aggregated shore AC&I line items such as Minor AC&I and Public Family Quarters. FY 1992 Shore AC&I funds carried over into FY 1993 totalled $25,238,000 or 24% of the FY 1992 request, and 23.6% of the $107,100,000 that was appropriated.

Our shore construction request (including survey and design) in FY 1993 was $132,400,000. FY 1993 shore facilities projects for which we expect no obligations in FY 1993 are:

Project Title		Funds Requested	% of Request
Portsmouth UPH Expansion		$6,300,000	4.8
MSO Tampa		$1,200,000	0.9
	Total	$7,500,000	5.7

These two projects represent 10.5% of the nineteen projects for which funds were specifically requested; this does not take into account aggregated shore AC&I line items such as Minor AC&I and Public Family Quarters. Funds in the amount of approximately $19,320,000 are expected to carryover into FY 1994. This represents 15.5% of the total $124,685,000 actually appropriated for shore facility projects in FY 1993.

Based on current projections, we expect all of the shore facilities construction projects requested in FY 1994 will have contracts awarded in FY 1994. Minimal amounts of funds will remain unobligated for construction contingencies, outfitting, electronics, and other remaining projects requirements.

(444) SENATOR LAUTENBERG: Please provide answers to the identical questions above for projects that saw less than 20 percent of the funds requested for a given year obligated in that fiscal year.

ADMIRAL KIME: There were no FY 1991 or FY 1992 Shore Facilities Construction projects, except those noted in the previous response, that obligated less than 20% in the fiscal year funds were appropriated. Currently, we do not expect to obligate, in the year appropriated, less than 20% of the funds requested for any FY 1993 or FY 1994 projects, other than the MSO Tampa and Portsmouth Unaccompanied Personnel Housing projects noted in the previous question.

(445) SENATOR LAUTENBERG: Please provide answers to the identical questions above for projects that saw no funds obligated, either in the fiscal year for which funds were requested, or the following fiscal year.

ADMIRAL KIME: The following Shore Facilities projects had no obligations in the fiscal year for which funds were requested, or the following fiscal year:

FY 1991 Projects

All FY 1991 projects that had no obligations in FY 1991 were awarded in FY 1992

FY 1992 Projects

The following Shore Facilities project had no obligations in FY 1992, and no obligations are projected for FY 1993:

Project Title	Funds Requested	% of Request
MSO Houston/Reserve Building	$2,600,000	2.5

FY 1993 Projects
We anticipate all FY 1993 projects will have funds obligated at the end of FY 1994.

FY 1994 Projects
We anticipate all FY 1994 projects will have funds obligated at the end of FY 1995.

RECONSTRUCTION OF PIER 37 IN SEATTLE

(446) SENATOR LAUTENBERG: In regard to your request to reconstruct Pier 37 in Seattle, why will it cost $70.6 million to reconstruct this pier?

ADMIRAL KIME: The cost to reconstruct Pier 37 is only $10.0 million. The remaining $60.6 million is the estimated future cost for all Acquisition, Construction, and Improvement (AC&I) projects over the next four (4) years at Support Center Seattle. These projects include construction or replacement of old buildings, and rebuilding Piers 35 and 36.

(447) SENATOR LAUTENBERG: Other piers have been constructed new in the Seattle area. Please provide cost estimates of other piers constructed in this region by the Washington State ferry system and others. How does your estimate differ from theirs?

ADMIRAL KIME: The $10.0 million required to reconstruct Pier 37 is comparable to other piers constructed in the region. The Navy's Everett Homeport Carrier Pier cost $36.5M, and the Everett Homeport South Wharf cost $11.4M. The Washington State Ferry System has completed the construction of a loading area for ferry vehicular traffic; however, this is not a pier. The loading area is a parking lot on an apron which does not contain utilities, shore ties, or a lateral load resistant structure. Although the Port of Seattle has constructed some ferry slips, the projects are not comparable to "pier projects."

(448) SENATOR LAUTENBERG: What is your time frame for the construction of this project?

ADMIRAL KIME: The project milestones are as follows:

Complete Design	- November 1993
Issue Invitation for Bids	- February 1994
Contract Award	- April 1994
Complete Construction	- April 1995

(449) SENATOR LAUTENBERG: What other pier space might be available in the Seattle area as a substitue for the reconstruction of Pier 37?

ADMIRAL KIME: There is no other long term rental pier space available in the Seattle area. Short term (or temporary) space to moor vessels at other piers is available at a cost of $5000 per day. It is too early to determine whether or not the naval facility at Bremerton, which will be realigned due to Base Realignment and Closure Commission recommendations, will have available space for Coast Guard vessels. It is possible that other Navy vessels will move to Bremerton as part of the overall BRCC implementation. If this occurs, space for Coast Guard vessels would be limited, if it were even available.

(450) SENATOR LAUTENBERG: Please describe in detail what alternatives assessments have been done for this project. Please provide copies of such alternatives assessments.

ADMIRAL KIME: Three main alternatives were evaluated: Reconstruct pier, Status quo, and relocation to piers 90 and 91.

1. Reconstruct pier 37 - Including temporary electrical shoretie utilities for vessels and temporary leased mooring for displaced icebreaker during construction. The estimated life cycle cost for this alternative is approximately $9.2 million in FY 1994, or $10.0 million in fiscal FY 1995.
2. Status Quo - Continued use of the existing dilapidated timber pier for icebreaker operations/homeporting. The estimated life cycle cost for this alternative is approximately $9.9 million in fiscal year (FY) 1994, or $10.3 million in FY 1995 due to the numerous repairs that would be required to maintain the pier.
3. Purchase and relocate Support Center Seattle to piers 90 and 91 - In 1990, a Coast Guard study was undertaken to examine this alternative. The initial cost, excluding land acquisitions costs, was estimated at approximately $83 million in FY 1990.

The following requested documentation summarizes these alternatives.

B. COST ESTIMATES

The costs for the proposal can only be estimated on an order-of-magnitude level. Exhibit 1 shows the estimated costs of the Coast Guard move to Terminal 91 and, for information, the Port of Seattle move to Piers 35/36/37. Exhibit 2 shows the estimated land value at Piers 35/36/37 and the estimated land value at Terminal 91. The land value estimates are suspect because they do not account for the relative economic values of the two properties under their "highest and best use". It is recommended that both properties be appraised to establish market values if the Coast Guard elects to pursue the proposal.

The following notes apply to the estimates shown in Exhibit 1:

a. All estimated costs are in 1990 dollars.

b. Environmental Mitigation costs include fish habitat mitigation and various testing. No upland cleanup costs are included. Further testing would be required to accurately estimate cleanup costs.

c. Costs for constructed spaces were taken from the Area Cost Factors and Unit Price for DOD Facilities Construction, adjusted for geographic costs.

d. Dredging costs at Pier 35/36/37 include $15,646,000 for disposal of contaminated dredge spoils at Cedar Hills. If the material becomes classified as "dangerous waste", then it must be hauled to Arlington, Oregon at an additional cost.

The source for the estimates shown in Exhibit 2 for the land and submerged land values is the January 1990 M. L. Schueler Annual Real Estate Evaluation prepared for the Port of Seattle.

Exhibit 1

Coast Guard move to Terminal 91

Administrative and Personnel Spaces:	$4,000,000
Public Access Spaces:	$1,275,000
Training Spaces	$1,825,000
Quarters and Recreation Spaces:	$4,225,000
Light Industrial and Storage Spaces:	$8,000,000
Dockside Storage Spaces:	$300,000
Waterfront Piers and Utilities:	$32,000,000
Parking Areas:	$200,000
Roads and Service Areas:	$150,000
Open and Landscaped Areas:	$800,000
Asbestos Abatement:	$100,000
Demolition:	$130,000
Environmental Mitigation:	$500,000
Site Preparation and Utilities:	$3,000,000
Moving Expenses:	$4,000,000
Subtotal:	$60,520,000
Contingency at 10%:	$6,052,000
Engineering, Sales Tax, Administration:	$16,644,000
TOTAL:	$83,221,000

Port of Seattle move to Piers 35, 36, and 37

Site Clearance:	$5,665,000
Dredging and Fill:	$20,645,000
Container Yard Development:	$3,445,000
Wharf Apron Construction:	$6,919,000
Environmental Mitigation:	$6,400,000
Bldg 7 Acquisition and Demolition:	$2,524,000
Subtotal:	$45,600,000
Contingency at 10%:	$4,600,000
Engineering, Sales Tax, Administration:	$12,540,000
TOTAL:	$62,700,000

Exhibit 2

Estimated Land Value at Piers 35, 36, and 37

Land Value:	
Land:	
(18 Acres x 43,560 sf/acre x $10/sf)	$7,840,800
Submerged Land:	
(5 Acres x 43,560 sf/acre x $5/sf	$1,089,000

Subtotal of Land Value:	$9,000,000
Value of Improvements:	
Buildings	$11,000,000
Piers	$15,500,000
Utilities	$9,000,000
Roads and Paving	$1,000,000

Subtotal of Improvement Value:	$36,000,000
	==========
TOTAL ESTIMATED VALUE:	$45,000,000

Estimated Land Value at Terminal 91

Land Value:	
Land	
(30 Acres x 43,560 sf/acre x $11.25/sf)	$14,701,500
Submerged Land:	
(33 Acres x 43,560 x $5.63/sf)	$8,093,000

Subtotal of Land Value:	$23,000,000
Value of Improvements:	
Buildings	$4,500,000
Piers	$9,000,000
Utilities	$7,000,000
Roads and Paving	$1,500,000

Subtotal of Improvement Value:	$22,000,000
	==========
TOTAL ESTIMATED VALUE:	$45,000,000

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2618A (Rev.7-89)	AC&I PROJECT PROPOSAL REPORT SUMMARY OF ALTERNATIVES (CONTINUED)	PROPOSAL NUBMER 33-401-92

OPOSAL TITLE RECONSTRUCT PIER 37
SUPPORT CENTER SEATTLE

COMPARISON OF ALTERNATIVES DESCRIPTION	RESOURCES REQUIRED IN THE FISCAL YEAR 94 BUDGET			NET TOTAL DISCOUNTED LIFE CYCLE COST (000)	ENVIRONMENTAL RANK
	COST (000's)	PERSONNEL			
		#MIL	#CIV		

OTHER ALTERNATIVES/COMMENTS:

Alternative 1 will accommodate moorage of 2 deep-draft polar icebreakers or inland buoytenders; however, available space cannot accommodate both vessel types at the same time. Established draft depth is -35' (MLLW).
Alternative 2 provides for selective repairs to deteriorated areas of the pier to return it to a safe and usable condition. Numerous areas of Pier 37 are currently restricted to loadings of less than 140 lbs/SF due to pile, stringer, or deck damage. Repairs under this alternative consist of pile splicing/stubbing to replace deteriorated or non-existing sections of timber piles, repair of damaged pile caps and deck stringers, repair of under-pier timber draft curtain, and repair of cracked asphalt paving surfaces. Sequence and phasing of all repairs is in accordance with the recommendations of the Alpha Engineers, Inc. Pier 37 Survey Report dated 31 Oct 90 (Reference (c) of Additional Criteria/Resource Summary, Page 1).
Other alternatives, including a new composite pier with timber piles and a concrete deck were evaluated but not considered feasible due to high dead load requirements placed on relatively long (30ft+) timber piling. This alternative would also be subject to under pier fires and would require a sprinkler system.
An alternative which proposed phasing demolition and construction along the east and west halves of Pier 37 was considered and discarded due to the extreme impact on length of construction and subsequent impact on available berthing. Additionally, access to pier areas under this alternative would require easement agreements with the Port of Seattle for the entire length of the construction period.
Full homeport berthing conditions will include 2 WAGBs, 2 WHECs, 1 WLB, and 1 WLIC. This does not include mooring for visiting COE, NOAA, NATO, and Navy vessels, which generally have correspondingly deeper drafts. Based on previous experience, WLB buoytenders should not permanently moor on the pierface exposed to Duwamish Waterway and Puget Sound swells.
The selected fender system (vertical fender piles with marine cushions, similar to system used at SUPRTCEN Alameda) will accommodate the horizontal fin stabilizer system on 270' WMEC or 110' WPB (although no 270s are presently operating on the West Coast). The mooring arrangement will also accommodate the new 120'WPB prototype. A camel-log type fendering system will also be required at selected areas of Pier 37 to accommodate smaller vessels and patrol boats.
Environmental Rank was determined based on the exposed surface quantity of fisheries habitat within the intertidal zone being enhanced through the use of steel grated deck openings (allowing light penetration to surface of water).

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2618C (REV 7-89)	AC&I PROJECT PROPOSAL REPORT ECONOMIC ANALYSIS OF ALTERNATIVES	PROPOSAL NUMBER 33-401-92
PROPOSAL TITLE: RECONSTRUCT PIER 37 SUPPORT CENTER SEATTLE	ALTERNATIVE TITLE: 1,200' WHARF, DEEP DRAFT	ALTERNATIVE NUMBER 1

PROJECT YEAR	ITEM ESTIMATED COSTS GIVEN IN FY 94 DOLLARS	ESTIMATED COSTS		DISCOUNT FACTOR	DISCOUNTED COST (000)
		ONE-TIME (000)	RECURRING (000)		
0	A. CONSTRUCTION COST: Pier 37 Reconstruction	$9,140		1.000	$9,140
	For the purpose of this analysis, follow-on maintenance is assumed to be equal between alternatives.				
	NET LIFE CYCLE COST-------				$9,140

ASIS OF COST ESTIMATES:
1. Estimates based on current year costs of similar construction in the area.
2. Assumed 4% per year escalation rate.
3. Discount factors per NAVFAC P-442.
4. No follow-on costs identified for this alternative as maintenance and utilities costs are already included in AFC-30 and AFC-43 budgets for both alternatives.
5. Economic life of pier based on 25 years per COMDTINST M16010.1A.
6. Estimates are based on annual maintenance dredging at Pier 37 for both alternatives.

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2618C (REV 7-89)	AC&I PROJECT PROPOSAL REPORT ECONOMIC ANALYSIS OF ALTERNATIVES	PROPOSAL NUMBER 33-401-92
PROPOSAL TITLE: RECONSTRUCT PIER 37 SUPPORT CENTER SEATTLE	ALTERNATIVE TITLE: STATUS QUO	ALTERNATIVE NUMBER 2

PROJECT YEAR	ITEM ESTIMATED COSTS GIVEN IN FY 94 DOLLARS	ESTIMATED COSTS		DISCOUNT FACTOR	DISCOUNTED COST (000)
		ONE-TIME (000)	RECURRING (000)		
	A. REPAIR COST:				
0	Repair piles with over 50% section loss (see Note 1)	$2,489		1.000	$2,489
1	Repair piles with 10% - 25% section loss (see Note 2)	$2,383		0.909	$2,166
6	Replace all deteriorated pier sections with new timber sections	$7,050		0.564	$3,976
11	Interim timber repairs	$1,762		0.350	$ 617
16	Interim timber repairs	$1,762		0.218	$ 384
21	Interim timber repairs	$1,762		0.135	$ 238
	For the purpose of the analysis, follow-on maintenance is assumed to be equal between alternatives.				
		NET LIFE CYCLE COST-------			$9,870

ASIS OF COST ESTIMATES:

. Project Year (0) items are repairs which rectify hazardous conditions at Pier 37, including repair of piles with over 50% section loss, associated pile caps, stringers, timber decking and asphalt concrete. These repairs should be performed immediately.

. Project Year (1) items are repairs which focus on maintaining a usable facility and prevent futher damage for occurring to the structure, including repairing piles with 10% - 25% section loss, repairing fire sprinklets, and replacing damaged camel logs.

. Project Years (6) - (21) replaces previously repaired sections with new timber piling, pile caps, stringers, and decking, and provides for expected interim repairs in Project Years 11, 16, and 21 (every 5 years).

. All discount factors per NAVFAC P-442.

PT OF TRANSP. USCG, CG-5518(6-89) LOCAL REPRO

MAJOR AC&I Q&M

(451) SENATOR LAUTENBERG: For each major AC&I renovation, rehabilitation, or replacement construction project, please provide the base O&M funding amount currently in the Coast Guard's budget and a justification for the requested increase in O&M funding.

ADMIRAL KIME: Facility additions and expansions require increased funding for additional costs for items such as utilities, preventative maintenance, housekeeping and minor repairs. The O&M funding base (exclusive of salary costs) and summary of facility upgrades for major AC&I renovation, rehabilitation and replacement construction projects as follows:

Station Burlington Replacement, Burlington, VT. Current O&M funding base is $75,178. Project replaces existing facility and increases square footage by 9,850.

Base South West Harbor Consolidate Base Facilities, Southwest Harbor, ME. Current O&M funding base is $138,755. Project renovates and constructs an additional 12,800 square foot shop and storage building.

Station Scituate Waterfront Improvement, Scituate, MA. Current O&M funding base is $69,173. Project replaces existing pier and floating dock. Follow-on funds are not required.

Group Sandy Hook Construct New WPB Pier, Sandy Hook, NJ. Current O&M funding base is $285,386. Project expands existing waterfront facilities, and adds utility services for two 110-foot patrol boats.

Group Fort Macon Stabilize Boat Basin, Atlantic Beach, NC. Current O&M funding base is $99,680. Projects constructs a 250 foot concrete groin, 650 foot revetment, a boat ramp and new mooring facilities.

Group Eastern Shore Renovate Group/Station Phase III, Chincoteague, VA. Current O&M funding base is $83,096. Project completes the final phase of a station renovation and increases the size by 23,055 square feet.

Station Key West Vessel Support Building, Key West, FL. Current O&M funding base is $71,481. Project constructs a new facility of 11,300 square feet to consolidate vessel maintenance shops, shore side equipment storage, and administrative offices.

Newport New Air Facilities, Newport, OR. Current O&M funding base is $75,000. Project constructs a new 11,400 square foot multipurpose building.

North Pacific Loran Station, Phases I and II (budget request says Phase II, but includes needed funds for Phase I also), Replace Station Attu, AK. Current O&M funding base is $174,141. Replace Station St. Paul, Current O&M funding base is $160,012. Projects replace existing transmitters, upgrade the electrical systems, and provide larger electric generators along with additional fuel storage capacity.

Support Center Portsmouth Expand Ship Support Facility, Portsmouth, VA. Current O&M funding base is $1,905,333. Project expands the existing facility by 4,600 square feet.

Support Center New York Replace Health Care Facility Governors Island New York, NY. Current O&M funding base is $14,005,874. Project renovates existing building and will reduce O&M costs. Decrease of O&M funding is no longer appropriate for fiscal year 1994 due to slippage of project completion date to October 1994.

Support Center Kodiak Construct Fire Station, Kodiak, AK. Current O&M funding base is $14,269,458. Project replaces existing fire station and increases the size by 6,620 square feet.

Support Center Alameda Child Care Facility, Alameda, CA. Current O&M funding base is $1,759,846. Project constructs a new 5,600 square foot child care facility.

Support Center Kodiak Swimming Pool, Kodiak, AK. Current O&M funding base is $14,269,458. Project constructs a swimming pool and adds an additional 12,250 square feet.

Support Center Seattle Pier 36/37 Apron Repair, Seattle, WA. Current O&M funding base is $833,305. Project replaces and upgrades the existing piers. No additional follow-on funds required.

Coast Guard Academy Child Development Center, New London, CT. Current O&M funding base is $12,891,000. Project constructs a new child care center. Additional O&M funding will not be required this fiscal year.

Aviation Training Center Underground Fuel Oil Storage Tanks, Mobile, AL. Current O&M funding base is $7,665,000. Project replaces leaking or obsolete underground storage tanks and adds 5,400 square foot pump/vault facility. Additional O&M funding will not be required this fiscal year.

Coast Guard Yard Upgrade Mechanical Shops, Baltimore, MD. Current O&M funding base is $1,777,000. Project renovates, upgrades, and expands the existing mechanical shops with an additional 23,000 square feet.

Coast Guard Yard Flammable Storage Facility, Baltimore, MD. Current O&M funding base is $1,777,000. Project constructs a new 7,500 square foot flammable storage building.

FY 1994 MINOR AC&I PROGRAM

(452) SENATOR LAUTENBERG: Concerning minor AC&I shore construction projects, please list all such projects anticipated to be funded under your FY 1994 request. Please identify any project that is not fully funded under your FY 1993 request and any future year requirements for such projects.

ADMIRAL KIME: We anticipate awarding construction contracts for the following minor AC&I projects during fiscal year 1994:

First District
Station Eatons Neck, NY - Construct Erosion Control System
Station Fort Totten, NY - Replace Pier
Air Station Brooklyn, NY - Rebuild Seawall
Group Moriches, NY - Provide Municipal Water
Air Station Cape Cod, MA - Construct Facility Eng. Dept. Building

Fifth District
CAMSLANT, Chesapeake, VA - Expand Receiver Operations Bldg

Eighth District
Station Freeport, TX - Construct Water & Sewer Treatment Facility

Ninth District
Station Plum Island, MI - Relocate Station

Eleventh District
Station Bodega Bay, CA - USCGC PT CHICO Const Support Bldg
Station Bodega Bay, CA - Construct Covered Mooring
Group Monterey, CA - Improve Maintenance Yard Lower Site

Fourteenth District
Group Honolulu, HI - Construct Boat Haulout

Seventeenth District
Base Ketchikan, AK - Replace Sewer System

Headquarters Unit
TISCOM, Alexandria, VA - Construct Computer Building Addition

Funding for the following fiscal year 1993 projects will be delayed until fiscal year 1994. We do not envision the need for additional funds above our FY 1994 Minor AC&I request to accomodate these projects.

Seventh District
Sand Key Light, FL - Restore Fire Damaged Light

Eighth District

Group Corpus Christi, TX - Construct WPB Support Facilities

Thirteenth District
Port Angeles, WA - Construct Wave Abatement wall

UNOBLIGATED AC&I SHORE CONSTRUCTION BALANCE

(453) SENATOR LAUTENBERG: What is the total level of unobligated balances that were carried forward for minor AC&I shore construction projects into FY 1993? What level is expected to be carried forward into FY 1994? Assuming enactment of your request, what level will be carried forward into FY 1995?

ADMIRAL KIME: The FY 1992 minor Acquisition, Construction and Improvements (AC&I) shore construction balance carried forward into FY 1993 was $36,270 (required for post-construction items such as outfitting and electronics). There is the possibility for a similiar small amount of unobligated funds at the end of each fiscal year. However, we plan to obligate all funds in the minor AC&I shore construction account in FY 1994 and FY 1995.

STATION BURLINGTON

(454) SENATOR LAUTENBERG: Please explain why so little progress has been made to date on the waterfront portion of the station replacement project for Burlington, VT. What amount of funding was specifically appropriated for the waterfront portion of this project, and why has only 5 percent of the design for this FY 1991 project been completed to date?

ADMIRAL KIME: The waterfront portion of the Station Burlington project was delayed when historical artifacts were discovered in the vicinity of the waterfront construction. The design of the waterfront could not begin until an agreement was made with the State of Vermont Division for Historic Preservation Office to preserve the artifacts during construction. Our FY 1991 budget estimated $980,000 for the waterfront portion. Because of these delays, the design for the waterfront work did not begin until March 1993. We expect to complete the design July 1993.

STATION EAST TAWAS PROJECT STATUS

(455) SENATOR LAUTENBERG: Please describe the status of the rebuilding of Station East Tawas, MI. Your quarterly acquisition report explains the construction of Station Tawas waterfront improvements pends resolution of property issues. Please describe the property issues involved in this project, and when you expect them to be resolved. What portion of the funding made available for the East Tawas project do you expect to be unobligated at the end of FY 1993 and FY 1994?

ADMIRAL KIME: The project to replace Station East Tawas facilities was divided into two phases, (which correlates with separate AC&I funding for FY 1990 & FY 1991). Phase I construction of the new main station building was completed in November 1991. Phase II construction of a new boat maintenance/shop building was completed in June 1992. Additional Phase II work to construct new waterfront moorings and a small boat haul out facility has been delayed by real property issues. The final phase of waterfront work is scheduled to start this fall and to be completed within approximately one year.

Construction of the waterfront facilities will occupy a portion of Coast Guard owned property within the boat basin where boat slips are maintained by the Tawas Bay Yacht Club (TBYC). TBYC has objected to our plans to construct these facilities and asserts an ownership claim to the property it currently occupies. TBYC occupies the property under a license issued by the Coast Guard in 1987. We have attempted to resolve concerns associated with the Phase II project, and to work with TBYC within the parameters of this license. The Coast Guard claims title to all of the property currently used and occupied by TBYC under the license. The Department of Justice and my staff are confident that we have clear and superior title to the land, and that TBYC has no legal or equitable claim to the licensed property. However, due to our long standing relationship with TBYC, we are continuing attempts to negotiate a compromise that would be beneficial to both sides. We plan to meet again with TBYC representatives on July 12, 1993.

If our construction plans proceed on the current schedule, approximately $700,000 of the original $1,400,000 FY 1991 funds will remain unobligated at the end of FY 1993. All funds are expected to be obligated at the end of FY 1994, although a small construction contingency (less than $100,000) may remain unobligated at that time.

(456) SENATOR LAUTENBERG: Please explain why so little progress has been made in the design and construction of the Air Station Savannah aspects of your efforts to establish an air facility at Charleston, SC.

ADMIRAL KIME: The combined preliminary design cost for Air Facility Charleston and Air Station Savannah exceeded the project budget. The project design team was then directed to ensure the project stayed within the appropriated funding level. This was accomplished by delaying the Air Station Savannah design until the final construction cost for Air Facility Charleston was known. Construction completion of Air Facility Charleston is expected in September 1993. For Air Station Savannah, a third quarter FY94 construction contract award is planned, and the estimated construction completion date is April 1995.

(457) SENATOR LAUTENBERG: Please explain how you succeeded in obligating $4,654,000 for the Support Center Kodiak fire station project when only $4,200,000 was appropriated. Were these additional funds made available through a reprogramming that was under the threshold for congressional concurrence?

ADMIRAL KIME: We received unexpectedly high bids for the Support Center Kodiak fire station project. Additional funds reprogrammed from savings in other shore facility projects were used to award the construction contract. This reprogramming was under the Congressional threshold.

(458) SENATOR LAUTENBERG: Similarly, please explain how you obligated $3.1 million for the Support Center park roads and ground project, when only $3 million was appropriated. Was there a reprogramming conducted here as well?

ADMIRAL KIME: We reprogrammed $108,000 from savings in another FY 1991 shore facility project to cover a funding shortfall in the Support Center Kodiak roads and grounds project. The additional funds were required for final settlement of a negotiated claim by the construction contractor. The reprogramming was below the threshold for Congressional notification.

(459) SENATOR LAUTENBERG: Please explain why the Galena Park, TX MSO Houston reserve building is under review. Has any of the $2.6 million made available for this project been obligated to date? What amount of the $2.6 million made available will be unobligated at the end of FY 1993 and the end of FY 1994?

ADMIRAL KIME: The Galena Park, TX MSO Houston reserve building project is under review because of a recently approved merger of Marine Safety Office (MSO) Houston and MSO Galveston into MSO Galveston Bay. (Part of MSO Galveston will be converted into Marine Safety Detachment Galveston). These organizational changes were approved to provide better service to the customer through a single Coast Guard voice in the Galveston Bay area. However, concerns exist about locating the new MSO Galveston Bay at the current Galena Park, TX site due to environmental reasons. The Coast Guard is also currently studying the air quality index in this industrial location.

The entire $2,600,000 will remain unobligated at the end of FY 1993 and may not be obligated prior to the end of FY 1994. If necessary, we will seek Congressional reprogramming in sufficient time to avoid lapsing the funds.

(460) SENATOR LAUTENBERG: Please explain why no construction has been completed as yet at the Support Center Kodiak pool. How was $4,475,000 obligated for this project when only $4,400,000 was appropriated. Was the additional $75,000 provided through a reprogramming?

ADMIRAL KIME: Bids on the Support Center Kodiak pool were opened in August 1992, but the construction contract award was delayed until March 1993 while a Mistake in Bid Determination was completed by the Government Accounting Office (GAO). Construction is now underway with completion scheduled for Summer 1994. Additional funds were required as bids were higher than expected. The additional funds were reprogrammed from another shore facility project (beneath the threshold for Congressional notification).

(461) SENATOR LAUTENBERG: Please provide your definition of "obligated" for shore construction projects. How is it that all appropriated funds for the Kodiak pool have been obligated, but no construction has been completed to date? Do you customarily obligate all project funds prior to construction of a project?

ADMIRAL KIME: The shore facilities portion of our Quarterly Acquisition Report reflects the actual construction contract award in the amount of $4,330,950 plus an additional $144,000 distributed to the field for various contract support costs. Since this contract was let during the month of March, construction would have commenced after the period of the report.

As with most of our shore facilities, the construction portion of the project reflects the majority of the budget funding and is fully obligated when the award for construction is made. Actual expenditures to the contractor will not occur until progress payments are authorized by the contracting officer.

(462) SENATOR LAUTENBERG: Please explain the status of the project to replace the yard portal crane at Curtis Bay, MD. Will the $3,850,000 now made available for this project be sufficient to finance the replacement of the crane? What is your final estimate for the cost of this project and your timetable for the replacement of the crane and obligation of the appropriated funds?

ADMIRAL KIME: The portal crane construction contract was awarded in February 1993 with an expected completion date of February 1995. Current estimates indicate the project will be completed within the total budget of $3,850,000. The current remaining unobligated balance of approximately $199,000 will be obligated prior to contract completion.

(463) SENATOR LAUTENBERG: Please explain why no progress has been made in the design of the MSO Tampa administration building. What is the status of this project? What portion of the $1.2 million made available for the project do you now estimate will be unobligated at the end of 1993 and the end of 1994?

ADMIRAL KIME: Initiation of project design was delayed pending resolution of issues surrounding local setback requirements on the very restricted site. A design contract was awarded in May 1993 with projected design completion expected in December 1993. We expect to begin construction in the spring of 1994.

All of the $1.2 million will be unobligated at the end of fiscal year 1993. A majority of the $1.2 million will be obligated with the construction contract award in fiscal year 1994. A small amount (less than $100 thousand), for remaining construction contingencies, and outfitting is expected to remain unobligated at the end of fiscal year 1994.

SUPPORT HOUSING PROJECTS

(464) SENATOR LAUTENBERG: Please display what portions of the $20.3 million made available for public family quarters in FY 1991 was specifically made available for Kodiak, AK; Cape Cod, MA; St. Ignace, MI; and Astoria, OR. Please note what portion made available for each of these projects remains unobligated?

ADMIRAL KIME: FY 1991 Public Family Quarters funds were made available to these projects as follows:

Project Title	Amount Made Available
Kodiak, AK.	$17,336,078
Cape Cod, MA.	0
St. Ignace, MI.	53,850
Astoria, OR.	1,415,129

There are no FY 1991 Public Family Housing funds remaining unobligated for these projects.

(465) SENATOR LAUTENBERG: Please describe in detail the status of the Cape Cod, MA public family quarters project, and why no progress has been made on the project to date?

ADMIRAL KIME: The original plan for this project was to acquire (through a no cost transfer) all abandoned Air Force housing units, to phase renovation of 180 of the units (25 units were to be renovated with FY 1989 funds), and to demolish the remaining units. However, a market analysis indicated that sufficient two and three bedroom units were available on the local economy and a detailed engineering evaluation determined that the deteriorated housing could not be economically renovated. For these reasons, the project was revised to also demolish the 180 units originally planned for renovation, and to construct new four-bedroom units (FY96 construction of 36 new four bedroom housing units is planned).

The demolition of the abandoned housing was completed in May 1993. Construction of the new units in FY96 is dependent upon completion of an Air Force upgrade to the sewage treatment facility, which is scheduled for completion in FY 1995.

(466) SENATOR LAUTENBERG: Similarly, please describe the status of the public family quarters project at St. Ignace, MI.

ADMIRAL KIME: Project delays were due to acquisition problems encountered for the original site. A second site has since been acquired.

This project is scheduled for a fourth quarter FY 1993 contract award. A housing market study which revalidated the housing need was completed in June 1993.

PORTSMOUTH HOUSING

(467) SENATOR LAUTENBERG: In previous budgets, you have asked for funding increases to enable you to expand the availability of leased housing to your personnel. You have recently been quoted to say that the availability of leased housing is no longer a problem in the Coast Guard. However, at the same time, you have asked us for funding for new Coast Guard housing, and some of this appears to not be necessary. Last year, at your request, we provided $6.3 million for Phase I construction of new bachelor housing in Portsmouth, Virginia. However, it now appears that the amount provided will be more than you need, given the availability of leased housing in the area.

Given this excess appropriation for new Coast Guard housing, how should we evaluate your request for FY 1994 for new housing projects in Alaska, Oregon, New York, Massachusetts, and Puerto Rico?

ADMIRAL KIME: The Coast Guard's policy remains to house our personnel in the civilian community using their housing allowances. Where housing allowances cannot provide adequate housing, Government leases are used, if available. If adequate leases are unavailable or not affordable, we seek to house our personnel through purchase or construction as a last resort. As housing markets are dynamic, our policy is to revalidate needs at least every two years. In the case of the Portsmouth unaccompanied personnel housing (UPH), the increased availability of Government leases affected the scope of this UPH. Therefore, we adjusted the construction project accordingly.

All FY 1994 requests for new housing projects have been and will continue to be re-evaluated, including studies of community housing conditions. Our authorized personnel strengths, upon which the analysis of need is based, are not expected to change at these locations. In the case of Astoria, Oregon, we reduced the total number of units requested by 6, in 1991, when an operational need caused us to transfer one helicopter and crew. Although further adjustments may occur as a function of ongoing analyses, no changes are expected for the FY94 projects.

(468) SENATOR LAUTENBERG: How recently have you reassessed the need for newly-built Coast Guard housing in these [Alaska, Oregon, New York, Massachusetts, and Puerto Rico] areas, versus the availability of leased housing?

ADMIRAL KIME: Completion dates of the latest validations/revalidations were:

Petersburg, Alaska	March 1993
Astoria, Oregon	September 1992
San Juan, Puerto Rico	September 1992

Validations/revalidations for the Manhattan Beach, New York and Randolph and Hull, Massachusetts projects are currently in progress.

Reassessing the availability of adequate leased housing is an ongoing activity for the Coast Guard. In areas where housing acquisition and/or construction is requested, however, we also conduct housing market studies. Due to dynamic budgetary climates and housing markets, our policy is to revalidate needs at least every two years during a project, from inception to the invitation for bid stage of project development.

(469) SENATOR LAUTENBERG: What other previously funded housing projects now appear to merit elimination or downsizing? Which of them merit elimination or downsizing due to the expanded availability of leased housing? Please note individual projects, their funding to date, and the amount of funding that no longer appears to be necessary.

ADMIRAL KIME: There are no other funded family or unaccompanied personnel housing projects which merit elimination or downsizing due to a change in leased housing availability or to operational decisions. Due to the dynamic housing market, our policy is to revalidate need at least every two years during a project, from inception to the invitation for bid stage of project development. Projects will be adjusted and Congressional notifications made, as required, if housing markets or Coast Guard requirements change. At present, no project downsizing is expected due to expanded availability of leased housing.

(470) SENATOR LAUTENBERG: Please describe the current status of the Portsmouth, VA unaccompanied housing expansion project. What amount of the $6,300,000 do you estimate will be needed for the entire project as a result of its reduction in scope?

ADMIRAL KIME: The Portsmouth Unaccompanied Housing (UPH) expansion project is being redesigned to construct a new 41 room UPH building along with renovations to the existing UPH and dining facilities. Renovations to the existing UPH are necessary to correct existing deteriorated building systems and provide balanced and operationally compatible heating, air conditioning, sprinkler systems and interior finishes between the new and existing buildings. The dining facilities renovations and additions will provide minimal increases to the dining, serving and support areas. Redesign is scheduled to be completed in December 1993 followed by a construction award in April 1994. The revised project cost estimate is $5,800,000.

(471) SENATOR LAUTENBERG: What other housing projects are currently under review due to the widened availability of leased housing to Coast Guard members?

ADMIRAL KIME: All housing projects are continuously under review to ensure justification. As of this date, no FY 1994 or previously funded projects are expected to be adjusted due to the availability of Government leases. We reassess the availability of leased housing continuously. In areas where housing acquisition and/or construction is requested, we also conduct housing market studies. These market studies evaluate the community's ability to provide adequate housing and are conducted at least every two years.

(472) SENATOR LAUTENBERG: Are there any Coast Guard housing projects currently under construction for which excess housing space is expected to be available?

ADMIRAL KIME: No, there are no housing projects under construction for which excess space is expected to be available.

(473) SENATOR LAUTENBERG: Are there any Coast Guard housing projects anywhere which currently have excess housing available? If so, please list all relevant projects, and the percentage of excess space available.

ADMIRAL KIME: There are no housing projects which currently have excess capacity. There are short-term vacancies in Coast Guard housing during the normal change of occupancy, for routine maintenance, and in emergency situations, but none of these vacancies are the result of excess capacity.

(474) SENATOR LAUTENBERG: Please identify all projects currently in the acquisition process for which a reassessment of housing needs might indicate that excess space will be available.

ADMIRAL KIME: There are no housing projects currently in the acquisition process for which we expect to have excess space.

KEY WEST PEARY COURT FAMILY HOUSING PROJECT

(475) SENATOR LAUTENBERG: What is the result of the recent needs assessment for the planned Peary Court Family Housing project in Key West, Florida? Does this assessment take into account the full impact of the Base Realignment & Closure Commission (BRCC) recommendations? What is the net surplus or shortage of housing units that will exist after any anticipated personnel and unit realignments occur at NAS Key West?

ADMIRAL KIME: The Navy's recent housing assessment reaffirmed the need to construct the Peary Court housing. No BRCC impacts on Key West are known. Proposed DoD force structure reductions and future Key West facility plans were also taken into consideration in this assessment. The Navy assured us that there will be a shortfall of at least 160 units, but they did not provide us with a detailed breakdown. Additionally, we conducted a housing market study in Key West this year that showed we cannot meet or reduce our need by housing our personnel in the local community.

(476) SENATOR LAUTENBERG: What is the nature and context of the agreement between the Navy and Coast Guard regarding the terms of public family housing availability to Coast Guard members? At what point will Coast Guard members receive equal access to Navy housing? Did they receive equal access at the time of appropriation or must they wait until the new housing unit is completed? Who will occupy the new housing units? What assurances does the Coast Guard have that it's members will receive equal access to housing?

ADMIRAL KIME: The Navy has been housing Coast Guard personnel on an equal-access basis since May 1977, when Coast Guard Group Key West and Naval Air Station Key West entered into an Inter-Service Support Agreement (ISSA). The ISSA, like ISSAs at other locations, covers access, reimbursement, and other issues. The Coast Guard's goal in funding construction of 160 units is to ensure this relationship continues. A Coast Guard letter, formalizing a 7 September 1987 meeting between the Coast Guard and the Naval Facilities Engineering Command, documented that in exchange for funding 160 housing units, the Navy will continue housing CG members on an equal access basis. The new units will not be specifically for CG occupancy but will be added to the Navy inventory for consolidated assignment. Primarily, junior enlisted personnel will benefit through the construction of these units.

(477) SENATOR LAUTENBERG: How far behind schedule is the Perry Court project? Are there any cost overruns anticipated due to the delay in the construction? If so, how much are these costs and who will pay them?

ADMIRAL KIME: The Perry Court project is scheduled for construction completion in July 1994. This represents a two month construction delay.

It is unknown at this time if there will be cost overruns due to contract delays

EC&R OBLIGATION SCHEDULE

(478) SENATOR LAUTENBERG: For each cleanup and remediation project listed for the Coast Guard's Environmental Compliance and Restoration program, please provide a schedule of how those funds will be obligated by fiscal year.

ADMIRAL KIME: For each cleanup and remediation project listed in the FY94 justifications, all funds requested for fiscal year 1994 will be obligated during fiscal year 1994. The funds requested are only those needed to complete work necessary in fiscal year 1994. Many projects may require additional funding which will be requested in future budget requests.

BUDGET

BASE CLOSURE IMPACT

(479) SENATOR LAUTENBERG: Admiral Kime, you stated in your verbal remarks that, "most of the impact" of the base closing activities in Department of Defense (DoD) "is going to be adverse" to the Coast Guard. Please explain in detail both the benefits and the costs that you expect to accrue to the Coast Guard due to the base closing initiatives.

ADMIRAL KIME: Four of our operational facilities will suffer direct impact, since they have landlord-tenant relationships with DoD facilities recommended for closure. These are Coast Guard Air Station (CGAS) Chicago, CGAS Barbers Point, CGAS Corpus Christi and Coast Guard Cutter (CGC) Escape. We are working with the Base Realignment & Closure Commission (BRCC), and DoD to access a BRCC account for relocation expenses, but we are concerned that this will not cover all start-up expenses at new sites, such as costs in relocating an air station to a commercial airport, or a cutter to a commercial berth. Some missions may suffer permanent impact; for example, when a C-130 is unable to stage from Naval Air Facility (NAF) Midway, or when a deployed cutter is no longer able to extend its patrol by reprovisioning at a Navy Base.

Many of our personnel and facilities will suffer from DoD closures; with the disruption of such services as medical, training, housing, maintenance, technical, commissary and exchange. The Coast Guard has long enjoyed the economies of scale that derive from using DoD-provided services, vice maintaining parallel services. If the recommended closures occur, cost to the Coast Guard and its personnel will increase substantially.

Under BRCC we will experience our greatest diminution of service in San Francisco and Charleston, since, like DoD, we have operational units near these key ports. However, the impact will be felt nationwide; for instance, training travel costs will likely increase since there will be fewer DoD sites offering training, our own training facilities may require expansion, or contracting for commercial training may become necessary.

Conversely, recommended DoD closures could present opportunities for the Coast Guard. Depending on the costs, we may be able to convert DoD facilities, or parts thereof, to operational Coast Guard facilities. Examples include Naval Station (NAVSTA) Mobile, or Marine Corps Air Station (MCAS) El Toro (for operating a helicopter only). Moreover, we are examining the feasibility of acquiring DoD housing units in Massachusetts, California and Hawaii. These are some potential benefits to explored. Initially, however, there would be costs associated with these transitions.

MACKINAW

(480) SENATOR LAUTENBERG: The submitted budget proposes to decommission a 50-year old icebreaker serving the Great Lakes, known as the MACKINAW. This will result in a savings in operating and personnel costs of roughly $5 million per year. Certain shipping interests in the Great Lakes have complained to us that the shipping season will be shortened, and jobs will be lost due to the loss of this icebreaking capability. Are you convinced that you can maintain your current icebreaking capability with other ships you have in the Great Lakes?

ADMIRAL KIME: Yes. The Coast Guard can continue to maintain the same level of service, a Great Lakes shipping season through the locks at Sault Sainte Marie, Michigan, from 1 April to 15 January each year with other existing resources at a significant cost savings. MACKINAW's icebreaking capability is not required to maintain the current shipping season.

The Coast Guard operates five 140' icebreakers with home ports on the Great Lakes. Fifteen years of operational experience, supported by a 1981 Coast Guard Research & Development Center study, have clearly demonstrated that two 140' icebreakers operating in tandem can replace the MACKINAW capability when such capability is required for the more severe ice conditions. The vast majority of operations require the capability of only a single 140' icebreaker.

Additional Great Lakes icebreaking assets include three 180' seagoing buoy tenders and backup support from two major Canadian Icebreakers including the 8,400 horsepower SAMUEL RISLEY. The 140' icebreaker fleet, in combination with these assets, can meet mission requirements. In addition, the Coast Guard is reviewing whether one of its East Coast 140' icebreakers would be better utilized on the Great Lakes.

The operating and personnel costs of approximately $5M per year can not be justified for a ship whose capabilities are not required. The Mackinaw essentially performs a single mission and is underutilized averaging only 525 hours per year for icebreaking.

(481) SENATOR LAUTENBERG: In prior years, you have requested acquisition funds from the subcommittee to repair this ship in order to keep it in service. Is the ship currently in adequate condition to continue operating without further renovation? How much would additional necessary renovations cost?

ADMIRAL KIME: No, MACKINAW is not currently in adequate condition to continue operating safely after the winter of 1993-94. In the winter of 1990, a Ship Structure and Machinery Evaluation Board identified three levels of renovation effort for the continued operation of MACKINAW: $3.9M for the most critical short term safety and reliability work, an additional $8.9M to extend the service life for 10-15 years, and of an additional $28M to carry out modernization and automation upgrades to allow for crew reductions. (All cost estimates in 1990 dollars.) To date, $1.5M of a required $6.1M for the MACKINAW Service Continuation Project (MSCP) has been appropriated. The major portion of these funds have not yet been obligated. If the Coast Guard's budget request to decommission MACKINAW is not approved, $4.6M of additional FY94 AC&I funds will be needed to complete the MSCP. This would allow the Coast Guard to operate MACKINAW for approximately five years.

(482) SENATOR LAUTENBERG: In your plans to decommission the Great Lakes icebreaker Mackinaw, you stated that under most circumstances, one of the five 140 foot icebreaking tugs could do the work of the Mackinaw, and in the worst case it would require two. We have been informed however, that two of the five tugs experienced engineering casualties placing them out-of-commission for portions of the critical break-out period. Are you convinced that the reliability history of these vessels will allow them to adequately cover for the Mackinaw's additional work load? Given the increased work load these tugs will experience, do you intend to provide any increased engineering support to ensure they experience a minimum of down time?

ADMIRAL KIME: The overall reliability record of the 140' icebreakers has been excellent, and I expect that to continue. We are reexamining the engineering support requirements for the 140' icebreaker fleet. If we determine a need for increased engineering support, we will take appropriate action. The ship service generators on the 140' icebreakers have been a high maintenance item and did result in a casualty this past spring. To ensure vessel reliability, these generators have been scheduled for replacement during fiscal years 1994-96. Another 140' icebreaker experienced a unique failure of the main engine blower. An analysis has determined the cause of the failure, and there is no evidence of a class wide problem.

(483) SENATOR LAUTENBERG: You also stated that in the event additional icebreaking capability is required you could call on the Canadians to assist. Is it reasonable to assume that during what would most likely be a period of greatest icebreaking need for U.S. ports, it would also be a period of great need for the Canadians as well? If so, would the Canadians be in a position to dedicate any of their icebreakers to clear U.S. ports? Are any of the Canadian icebreakers of comparable size to the MACKINAW such that they could cut a sufficiently wide track under severe ice conditions, or would they also have to work in tandem similar to your 140's in severe ice conditions?

ADMIRAL KIME: The major United States and Canadian icebreakers are primarily used to keep open critical waterways such as the Saint Marys and Saint Clair Rivers and the Straits of Mackinac, not individual ports. This is done by conducting continual navigational track maintenance when necessary and escorting convoys of vessels or specific ships if that is required. Port clearing operations are normally accomplished by commercial icebreaking companies. It is a well established Coast Guard policy to not interfere with the commercial icebreakers who are available and capable to perform icebreaking work.

A 1990 agreement with the Canadian Coast Guard delineates primary areas of icebreaking responsibility for the two Coast Guards while also providing for mutual assistance when unusually severe ice conditions in a specific area require. Although these situations have been rare, a positive, mutually beneficial working relationship has been established. Both countries have a common vested interest in ensuring the shipping season is maintained by keeping open essential shipping lanes used by both countries. A significant portion of the shipping done on the Great Lakes is carried out by Canadian ships in support of Canadian commerce.

The Canadian Icebreaker SAMUEL RISELY has capabilities comparable to the MACKINAW and does not need to operate in tandem with any other vessels.

(484) SENATOR LAUTENBERG: In the event that additional icebreaking capability was needed beyond the five 140's stationed on the Great Lakes, you stated that a sixth 140 possibly may be transferred from an East Coast port. When will this decision be made? Will it be a permanent change of homeport given the fact that a mid winter transit is not possible due to locks closures?

ADMIRAL KIME: The Coast Guard is currently reviewing all of our domestic icebreaking requirements, encompassing the Great Lakes, the Northeast, and Chesapeake Bay. If it is determined that one of the four 140' icebreakers homeported on the East Coast would be better utilized on the Great Lakes, the Coast Guard would most likely move a 140' icebreaker to the Great Lakes permanently. Although yearly deployments from an East Coast home port would be possible (the ship would be needed in the lakes for icebreaking operations well before any lock closures and could then winter over on the lakes in preparation for the spring breakout) this would require the ship to be away from home port for up to 5-6 months at a time. The Coast Guard's review of this subject will be completed by the end of FY93. Any potential move resulting from this review would be accomplished prior to the first icebreaking season without MACKINAW.

(485) SENATOR LAUTENBERG: Will the loss of Mackinaw from the Great Lakes shorten the shipping season? If so, has the Coast Guard done an economic analysis to determine the cost to the iron ore, steel and power generation industries in the event the icebreaking tugs prove ineffective without the assistance of Mackinaw?

ADMIRAL KIME: Decommissioning the MACKINAW will not shorten the shipping season on the Great Lakes. Fifteen years of operational experience, supported by a 1981 Coast Guard Research & Development Center study, have clearly demonstrated that two 140' icebreakers operating in tandem can replace the MACKINAW capability when such capability is required for the more severe ice conditions. The vast majority of Great Lakes ice operations require the capability of only a single 140' icebreaker. MACKINAW's icebreaking capability, while formidable, is not required to maintain the current shipping season of 1 April to 15 January each year. The Coast Guard will maintain the current shipping season using existing icebreaking assets. These include five 140' icebreakers, three 180' seagoing buoy tenders and backup support from two major Canadian Icebreakers including the 8,400 horsepower SAMUEL RISLEY. In addition, the Coast Guard is reviewing whether one of the four 140' icebreakers homeported on the East Coast would be better utilized on the Great Lakes.

(486) SENATOR LAUTENBERG: In your House testimony, you stated that the cost of icebreaking with the Mackinaw is $220,000 per day of icebreaking. Does the Mackinaw accomplish any missions other than icebreaking that should be included in her cost per day analysis? If not, why was a permanent crew assigned to Mackinaw for the equivalent of only 20 days per year?

ADMIRAL KIME: Other than icebreaking, Public Affairs trips, and underway periods for crew training (100% overhead), MACKINAW is rarely used for any other Coast Guard mission, and then only as a "vessel of opportunity". The figure of approximately $220K per day for the equivalent of 20 days per year was used to help illustrate the cost of continuing to operate what is essentially a single mission ship. This illustration is even more striking when one considers that a vast majority of the MACKINAW's most important work, icebreaking, could be accomplished by a single 140' icebreaker at less than one-fourth the cost. Under only the most severe circumstances would two 140' icebreakers working in tandem be required to replace the capability of MACKINAW for isolated incidents. In 1981, the permanent crew was reduced from 117 to 75 billets. This is the minimum number of people needed to ensure a qualified crew is able to maintain and operate the 50 year old MACKINAW.

(487) SENATOR LAUTENBERG: Please provide a summary of operational days for each of the 140' Great Lakes icebreaking tugs over the last year? Please indicate overhaul and yard availability days, unscheduled casualty days (scheduled patrol days missed due to casualties), and days allocated to each of the major missions which they accomplish.

ADMIRAL KIME: The table below summarizes the 140' icebreaker availability on the Great Lakes for fiscal year 1992.

140' ICEBREAKER AVAILABILITY
FISCAL YEAR 1992

Vessel	Sched Maint	Unsched Maint	Ice Breaking	Aids to Nav	Search and Rescue	Standby	Training	Misc
KATMAI BAY	161	3	47	2	0	111	23	19
BRISTOL BAY	86	39	13	65	0	144	17	2
MOBILE BAY	127	0	41	0	4	163	30	1
BISCAYNE BAY	98	0	48	1	0	173	28	18
NEAH BAY	74	10	49	2	0	187	24	20

GREAT LAKES SHIPPING SEASON LENGTH

(488) SENATOR LAUTENBERG: Admiral, in your verbal remarks you stated that, for environmental concerns, the shipping season in the Great Lakes has been shortened. What were those environmental concerns that led to the shortening of the shipping season?

ADMIRAL KIME: The Coast Guard operates icebreaking resources on the Great Lakes under a 1979 Corps of Engineers Environmental Impact Statement. The environmental concerns identified were possible impacts on spawning of lake herring and other fish species, possible effects on deer moving among the islands in the Saint Marys River area, and interference with winter recreational fishing and other sporting activities. These concerns were part of the reason the year round shipping season, although shown to be feasible, was not implemented on a permanent basis. (Questions were also raised about the economic benefits of year round shipping.) Discussions on the environmental effects of winter navigation in the Saint Marys River remain a current issue and were the subject of a June 28, 1993 meeting between the Michigan Department of Natural Resources, the Army Corps of Engineers, the U. S. Fisheries and Wildlife Service, and the Coast Guard. The meeting was also attended by representatives from the Michigan Departments of Transportation and Commerce.

(489) SENATOR LAUTENBERG: You also stated that the Corps of Engineers determines exactly what shipping season is in the Great Lakes. What, in fact, is the shipping season as determined by the Corps of Engineers?

ADMIRAL KIME: The shipping season is determined by the opening and closing of the locks at the head of the Saint Marys River in Sault Sainte Marie, MI. Per 33 CFR Section 207.440, the opening date is 1 April and the closing date is 15 January each year. The Corps of Engineers is authorized to make exceptions to these dates, giving consideration to an emergency involving disaster to a vessel or other extraordinary circumstances.

CIVILIAN ADMINISTRATIVE PERSONNEL CUTS

(490) SENATOR LAUTENBERG: As part of President Clinton's "administrative streamlining" initiative, you are proposing to cut 142 administrative positions in the Coast Guard. However, because the President's executive order applied only to civilians and not the military, all of the positions that you will be cutting for administrative streamlining will come from your civilian employees.

Given the fact that your administrative functions are as likely to be performed by military personnel as civilian personnel, do you really think it makes sense to only cut civilians in the name of administrative streamlining?

ADMIRAL KIME: While both military and civilian personnel perform administrative work for the Coast Guard, the Executive Order specified only civil service personnel reductions. Those reductions were singled out in their own distinct budget line item.

Nonetheless, in order to meet revised agency budget baselines, which were lowered due to a number of Executive Orders, which were primarily designed to reduce the administrative cost of government, the Coast Guard found it necessary to reduce its military workforce by a total of 475 billets (FTP) across all appropriations. That reduction represents over a one percent decrease in the military workforce. The military reductions, some of which are administrative in nature, are reflected implicitly in budget reduction line items across all appropriations.

(491) SENATOR LAUTENBERG: For several years, we have been encouraging the Coast Guard to employ civilians, especially in the Office of Acquisition and other offices where experience and longevity are very important.

How will your proposal to cut 142 positions solely from the civilian work force affect the recent gains we have made in boosting the number of civilians in certain critical positions?

ADMIRAL KIME: A process is under development which will help us decide where the reductions should occur. We expect to complete the first phase of this process to meet the 1994 reduction level before the beginning of FY 1994. It is, therefore, premature to discuss what effect the reductions will have on the recent gains in employing civilians in critical positions, until we have identified and rank ordered the pool of candidate vacant promotions.

The process will contain sufficient flexibility to keep critical positions filled. The requirement of the Executive Order which states that 10 percent of the reductions be taken in the higher grade levels will be difficult to accommodate and will likely affect the gains we have made.

(492) SENATOR LAUTENBERG: For several years, we have been encouraging the Coast Guard to employ civilians, especially in the Office of Acquisition and other offices where experience and longevity are very important.

> If you were given the flexibility to achieve the same amount of administrative savings by cutting both military and civilian positions, would you use that flexibility?

ADMIRAL KIME: Clearly, the broadest and most flexible administrative reduction strategy and policy is in the best interest of the organization, more flexibility would help us better in target reductions to those areas which will have the least adverse impact on agency goals and service to the public. I would use the flexibility of both military and civilian reductions as long as our total workforce was reduced no more than 258 positions (four percent of total civilian positions required by executive order 12839).

(493) SENATOR LAUTENBERG: Admiral Kime, Executive Order 12839 requires you to eliminate not less than 4 percent of your civilian positions over three years.

Please describe how you are implementing the $7.4 million reduction in FY94.

ADMIRAL KIME: The Executive Order states that the reductions shall occur through attrition. A reduction strategy that incorporates this specific requirement is challenging.

Nonetheless, a process is under development which contains weighted criteria to rank order each vacant position. The criteria would address several dimensions, including budgetary history of the position, impact of deletion, safety issues, etc.

It is envisioned that each position will be rank ordered and the lower evaluated positions would be deleted to achieve the reductions.

A reclama process will be incorporated which will provide the program or unit the flexibility to exchange a lower priority billet when it becomes vacant with one that might have been deleted under the original criteria. Our intent is to programmatically achieve efficiencies and to minimize adverse impacts on our ability to serve the public. We expect to complete the first phase of this process to meet the 1994 reduction level before the beginning of FY 1994.

(494) SENATOR LAUTENBERG: Admiral Kime, Executive Order 12839 requires you to eliminate not less than 4 percent of your civilian positions over three fiscal years.

> Notwithstanding that Executive Order 12839 applied only to civilian positions, and given the fact that there are multiple job types within the Coast Guard that might be served by either a civilian or a military billet, do you believe that it is appropriate to take this FTE reduction solely from your base of civilian employees?

ADMIRAL KIME: As indicated in question 490, and demonstrated in our request, we have applied administrative reductions to both military and civilian employees within the constraints of the Executive Order.

(495) SENATOR LAUTENBERG: In many areas of the Coast Guard, both you and the Congress have worked to enhance the number of civilians, to provide geographic stability and institutionalize memory to many programs.

What impact will the loss of 142 civilian positions have on these efforts? What number of civilians, for example, are likely to be reduced from the Office of Acquisition?

ADMIRAL KIME: As indicated earlier, a process is under development which will help us decide where the reductions should occur. And we expect to complete the first phase of this process to meet the 1994 reduction level before the beginning of FY 1994. It is too early to discuss what affect the reductions will have on Coast Guard acquisitions until we have identified and rank ordered the pool of candidate vacant positions.

An attempt is being made to keep critical positions filled. However, it is likely that the reductions will adversely impact some of the gains in acquisition management we have made over the last several years.

(496) SENATOR LAUTENBERG: Your FY 1994 budget assumes a reduction of $5.5 million in administrative expenses in FY 1994. What efforts have been taken to reduce such administrative expenses in FY 1993, and what amount of savings have you enjoyed?

ADMIRAL KIME: We have not recouped any savings in FY 1993 from the administrative base reduction of $5.5 million identified in our FY 1994 budget request. We have identified our administrative expenses base in accordance with OMB guidelines. We are reviewing and targeting specific expenditure categories, such as, travel, conferences, consulting services, utilities, postal services, transportation services, printing, reproduction, automatic data processing services, etc., to formalize a specific reduction strategy. We have alerted field commands as to the requirements of Executive Order 12837 (Deficit control and productivity improvement in the administration of the federal government) and the associated Office of Management and Budget implementation guidance (OMB Bulletin 93-09). We have directed field commands to identify candidates for administrative expenses base reductions in FY 1994.

(497) SENATOR LAUTENBERG: Please cite the specific measures taken to reduce administrative expenses within the Coast Guard. What reductions in services might the public and/or the Coast Guard community encounter as a result of this administrative expense reduction?

ADMIRAL KIME: We have identified our administrative expenses base in accordance with OMB guidance. We are reviewing and targeting specific expenditure categories, such as, travel, conferences, utilities, postal services, transportation services, printing, reproduction, automatic data processing, etc., to formalize a specific reduction strategy to meet OMB's FY 1994 - 1998 target level reductions. We have alerted field commands as to the requirements of Executive Order 12837 (Deficit control and productivity improvement in the administration of the federal government) and the associated OMB implemention guidance (OMB Bulletin 93-09). We have directed field commands to identify candidates for administrative expenses base reductions in FY 1994.

The Coast Guard's Operating Expenses appropriation will be subject to the majority of the reduction in administrative expenses. According to the schedule provided by the Office of Management and Budget, over the next four years, the Coast Guard will be subject to over $49 million in administrative related reductions in the Operating Expenses Appropriation.

Provided the budget is enacted at the level of the President's request, the Coast Guard does not expect the fiscal year 1994 reduction ($5.5 million) to have an adverse impact on public services. Activities which can be quickly scaled back, such as travel and conferences, are the primary reduction candidates for FY 1994.

It is expected that the subsequent years' administrative efficiencies will be achieved in part through carefully managed organizational re-engineering, energy conservation and voice/data communications reductions. However, it will take more time to assess how the reductions will be taken in the outyears in the other administrative related areas which include: transportation, communications, utilities, postal services, printing, reproduction, automated data processing, consulting, services, and housekeeping.

All of these reductions will undoubtedly impact the way the Coast Guard does business. While the Coast Guard intends to manage these reductions so as to minimize their impact on the level of services to the public and the Coast Guard community, it is too early to assess the degree to which operational missions may be affected in the long run.

(498) SENATOR LAUTENBERG: Please describe in detail what is covered under your $184,000,000 base for administrative expenses.

ADMIRAL KIME: The Coast Guard's $184,000,000 base for administrative expenses is derived from administrative obligations reported in the object classes identified by OMB; 21.0, 22.0, 23.2, 23.3, 24.0, 25.1, 25.2, and 26.0. A table detailing the estimated level of administrative expenses in these object classes is provided below:

FY 1993 Administrative Expenses Base

DETAIL	ADMINISTRATIVE EXPENSES
- All non-PCS and non-mission support travel of persons, including: primarily training, but also includes presentations, miscellaneous administrative travel activities, rental of vehicles while in travel status....	$73,600,000
- Transportation/transfer of all materials and or equipment, vehicle rental and ADP equipment not otherwise classified as transportation of PCS-Household goods and mission support........	$20,900,000
- Rentals which include ADP, recreational, office labor and motion picture film equipment; lease of building space and other miscellaneous administrative real property leases.................	$6,700,000
- Lease of non-mission support oriented telecommunication switches and dedicated circuit costs and furniture rental.......	$70,000,000
- Printing Costs.................	$7,900,000
- Consulting Services...........	$4,900,000
TOTAL	$184,000,000

PERSONNEL RELOCATIONS

(499) SENATOR LAUTENBERG: In budget category line items I-C, I-D, I-E, I-F, and I-H, your budget proposes to retain a certain level of FTE and base funding for one year to accomplish personnel relocations. Please explain in detail the rationale behind the retention of these resources. Please use the example of budget category line item I-H, "The termination of Presidential security in Kennebunkport, ME", in describing the rationale for the retention of these resources. When did Presidential security efforts terminate in Kennebunkport, ME? What number of personnel served to provide such Presidential security? Please show on a month-by-month basis what number of personnel were transferred out of this assignment since Election Day of 1992. If any personnel are still located in the northern Massachusetts/southern Maine area and are assigned to Presidential security, please explain why they are still there and what purpose they are currently serving. Why is the Office of Personnel incapable of moving people as changing mission requirements demand?

ADMIRAL KIME: The FY93 House Appropriations Committee Report (102-639) expressed a concern regarding average personnel cost computations. As a result, the Coast Guard examined the methodology used to calculate average personnel costs under a variety of situations and made some changes designed to improve our cost estimates. It was one of these changes, a change to the methodology which calculates the cost of the transfer of personnel from units that are to be discontinued, that prompted the footnote "1/" on the base information in budget category one (BUDCAT 1) to which you are referring.

In calculating BUDCAT 1 line items there are two overarching issues to address. First, if the Coast Guard were to propose the elimination of all funds in the base associated with specific billet reductions in the year they are to be reduced, then there would not be sufficient funds to accomplish required permanent change of station (PCS) transfers generated by the personnel reductions. Therefore, for each BUDCAT 1 line item containing personnel reductions, even those having full year full time equivalents (FTE), the Coast Guard retains, for one year, a small amount of funds within Allotment Fund Code 20. A reduction entitled "Annualize Management Savings" will be included in the subsequent years/FY95 budget which among other things (explained below), removes the base AFC-20 funds associated with all FTP (including general detail) reduced in the BUDCAT 1.

Second, in some instances, the Coast Guard retains the FTE needed to support an orderly unit transition/closure A reduction entitled "Annualize Management Savings" will be included in the subsequent years/FY95 budget which removes the salary and standard personnel costs associated with the remaining FTE. Reductions are phased over a two year period for a variety of reasons, the most prominent being: (1) operational necessities, (2) the decision to decommission the unit is often made after assignment panels have met and/or a majority of the PCS orders have been issued and (3) in consideration of the overall number of Coast Guard personnel across all appropriations that must be attrited.

Please consider that, the FY94 OE request contained the highest level of proposed budget reductions within recent memory; $42 million. It calls for the reduction of 475 military billets; over one percent of our force. It will be a challenge to manage a reduction of this magnitude. The FTE to FTP ratio in any given line item is an estimate of the ability to reduce personnel not only from the specific unit but from the Coast Guard. Actual savings do not accrue unless the total number of FTE/personnel in the service decreases.

The following specifically addresses these concerns in the "Terminate Presidential Security Detail in Kennebunkport, ME" budget reduction:

(1) The budget proposes to reduce 58 full time positions, retaining 14 full time equivalents in FY94. There were 51

operational billets associated with the PSD; 14 from Air Station Cape Cod, MA and 37 from Station Portsmouth Harbor, ME. There were 7 general detail billets associated with this initiative.

(2) The FY94 request, line item I-H, retains 14 FTE and $551,000 to allow for an orderly transfer of personnel associated with the PSD.

(3) It wasn't until 11 February 1993 that the Coast Guard received final notification from the United States Secret Service as to the extent of its follow-on requirements to protect the former President. Any residual security requirements can be accommodated by pre-1988 resource levels. While this was before the budget was made final, it was well into the (re)assignment season. The PSD was officially disestablished on 7 June 1993.

(4) There were 3 officer and 48 enlisted billets assigned to the PSD. The projection of officer transfers has not been finalized, but it is expected that all officer assignments will be completed during the summer of 1993. The following displays the month-by-month enlisted transfers and projections of future transfers since Election Day 1992.

Number of Transfers	Month of Transfer
1	3/93
2	4/93
10	5/93
10	6/93
7	7/93
2	8/93
3	1/94
5	5/94
8	6/94

(5) While the budget retains 14 FTE, the table above shows approximately 10 FTE will be consumed (In retrospect, the estimate was conservative.) This rate of transfer allows service-wide attrition to create suitable assignment oppurtunities for some members while providing a little more geographic stability and allows the unit to retain qualified boat crew/aircrew personnel.

(6) Remaining personnel are serving to augment the stations. They are not conducting PSD.

The Coast Guard prides itself on its operational responsiveness, as well as taking care of its people. As has been evidenced over the last several years, the Office of Personnel and Training is capable of moving personnel as changing mission requirements demand (e.g., E-2C's, LBA's, SBA's) and does so while attempting to remain sensitive to Work-Life issues indicated in paragraph (5) above.

(500) SENATOR LAUTENBERG: Part of the rationale behind seeking appropriations for the "general detail" associated with Coast Guard billets is the funding buffer necessary to accommodate personnel transfers. Given that general detail are associated with all the billets included in these budget category I line items, please explain why resources must be retained to account for personnel relocations. Please provide a table detailing the amount of resources retained for personnel relocations for each of the budget category I line items.

ADMIRAL KIME: One of the purposes of the general detail is to accommodate the personnel disruptions and discontinuities assiciated with personnel transfers. However, unless all transfers have been completed before the beginning of the fiscal year, giving up all of the general detail associated with the billets in the budget category I line items, as would be the case under a full FTE reduction, defeats the purpose of its existence and makes it more difficult to accommodate budget reduction transfers.

The issues discussed in the answer to the previous question pertaining to the retention of partial year FTE and PCS transfer costs still apply. The following table details the number of FTE retained for all of the reasons discussed in the previous question:

Line Item	Title	FTE retained*	AFC-20 costs retained*
I.A.1	Civilian Service Personnel Reductions	2	$ 93,228
I.C.1	Closure of Far East Section LORAN sites	0	$458,205
I.C.2	Coast Guard Far East Section Closure	2	$145,947
I.D	Reduce Anti-Submarine Wareface Mission Capabilities	0	$216,424
I.E.1	Accelerate transition from HH-3F to HH-60J Helicopter	53	$146,278
I.E.2	Terminate AEW EC-130 Dectection and Monitoring Operations	0	$ 22,070
I.F.2	Decommission USCGC Mackinaw	64	$118,373
I.G	Vessel Identification and Documentation System Base Reduction	0	$ 7,906
I.H	Terminate Presidential Security Detail in Kennebunkport, ME	14	$ 78,559
I.I	Communications System Management Efficiency	0	$ 37,324

* FTE and AFC-20 funds retained will be annualized in FY 1995 to provide full recurring savings.

(501) SENATOR LAUTENBERG: Is it a new policy of the Office of Personnel to minimize instances of moving Coast Guard billets to new assignments with a minimum of notice, as might have been the case if all personnel were transferred at the time that the mission requirement cited in the budget category I line items were terminated? Does the current policy in this regard differ at all from the policy of the last several years? If so, how and why?

ADMIRAL KIME: Our personnel resource distribution and assignment policies have not changed.

When decisions on closure or changes to unit strengths are approved, the Coast Guard acts swiftly to delete the billets. The Coast Guard attempts to relocate the affected personnel just as swiftly. However, in particular instances such as unit closures, relocations do not occur concurrently with the elimination of the billets. For example, when Coast Guard Air Station St. Augustine was decommissioned, not all members moved from St. Augustine to a new billet on the day the St. Augustine billets were eliminated. The Coast Guard does this in order to afford a measure of orderliness in closing out or opening a particular duty assignment or unit as well as to give its people time to move their households and readjust their personal and family lives.

SHORE FACILITY CONSTRUCTION FOLLOW-ON FUNDING

(502) SENATOR LAUTENBERG: Regarding your request for shore facility construction follow-on funding, please identify what major and minor AC&I locations no longer appear to require O&M funding in FY 1994 based upon your most recent schedule. Please provide the relevant funding figure for each project. Please identify any projects for which O&M follow-on funds were provided in FY 1993, but were not

needed due to delays. Provide the anticipated date of completion of construction in FY 1994 for each major and minor project. Are there projects not included in the Budget Estimates that will be completed in FY 1994 requiring follow-on O&M funding? Please provide all relevant $ figures.

ADMIRAL KIME: The following major and minor AC&I projects no longer require O&M funding in FY 1994:

Major AC&I Projects	($000)
Health Care Facility, Governor's Island, NY	-47
Academy Child Development Center, New London, CT	117
Cutter Storage Building, Kodiak, AK*	36

Minor AC&I Projects	($000)
Light Restoration, Sand Key, FL	0
ATC Mobile Underground Fuel Tanks, Mobile, AL*	9
Building 21 Renovation, Alameda, CA	0

* Due to an administrative error, the Cutter Storage Building (Kodiak, AK) was included under Minor AC&I category in the request, but should have been included under the Major AC&I category, and the ATC Mobile Underground Fuel Tanks (Mobile, AL) should have been included in the Minor, versus Major, AC&I category.

The following major and minor AC&I projects are experiencing delays and are not expected to be completed in FY 1993. All of the remaining projects for which FY 1993 O&M follow-on funds were appropriated are expected to be completed in FY 1993.

Major AC&I Projects	($000)	Est. Completion Date
Renovation, Station Cape Cod Canal, MA	88	10/93
New Marine Safety Office Building, Houston, TX	128	unknown*
Applied Training Facility, Cape May, NJ	195	12/93

Minor AC&I Projects	($000)	Est. Completion Date
New Search and Rescue Detachment, Holland, MI	16	12/93

*Project under review due to decision to combine Marine Safety Offices Houston and Galveston into MSO Galveston Bay.

The following major and minor AC&I projects are contained in the FY 1994 Budget Estimate and will be completed prior to FY 1995. The funding requested is only for the months following project completion.

Major AC&I Projects	Completion Date	$000
Station Replacement, Burlington, VT	10/93	102
Consolidate Facility, Base SW Harbor, ME	6/94	44
Waterfront Improvement, Station Scituate, MA	10/93	0
New Pier at Group Sandy Hook, Highlands, NJ	3/94	33
Group Fort Macon Stabilize Boat Basin, Atlantic Beach, NC	8/93	4
Group Eastern Shore Renovation Phase III, Chincoteague, VA	3/94	141
Vessel Support Building, Station Key West, FL	8/94	45
New Air Facility, Newport, OR	11/93	162
LORAN Station Renovation Phase I, Attu, AK	4/93	199
LORAN Station Renovation Phase II, St. Paul, AK	8/94	116
Expand Ship Support Facility, Portsmouth, VA	12/93	36

Replace Fire Station, Kodiak, AK	4/93	173
Child Development Center, Alameda, CA	8/94	20
Swimming Pool, Kodiak, AK	5/94	45
Pier 36/37 Apron, Seattle, WA	9/93	0
Upgrade Yard's Mechanical Shops, Baltimore, MD	2/94	167
Yard Flammable Storage Bldg, Baltimore, MD	6/94	13
	TOTAL	1300

Minor AC&I Projects	Completion Date	$000
Station Portsmouth Harbor Floating Dock, New Castle, NH	2/93	18
Aids to Navigation Facility, South Portland, ME	2/94	29
New Pier, Station Fort Totten, Willets Point, NY	1/94	7
Light Station Pier Replacement/Extensions, Tortugas, FL	4/94	10
Patrol Boat Support Facility, Group Corpus Christi, TX	3/94	11
Station Communications Center Upgrade, Monterey, CA	5/93	8
Station Communications Center Upgrade, McKinleyville, CA	5/94	3
Air Station Communications Upgrade, San Francisco, CA	5/94	3
Group Communications Center Upgrade, Astoria, OR	7/93	8
Wave Abatement, Group Port Angeles, WA	5/94	0
Group Communications Center Upgrade, Port Angeles, WA	5/93	4
Fire Protection System, Honolulu, HI	8/93	6
Patrol Boat Support Facility, Honolulu, HI	6/93	40
Automobile Paving, Kodiak, AK	4/94	7
Expand Naval Engineering Support Unit, Seattle, WA	7/94	2
Utility Boat Systems Center, Yorktown, VA	6/94	16
	TOTAL	172

The following Major AC&I project is expected to be completed in FY 1994 and is not included in the Budget Estimates:

	Completion Date	$000
Air Station Expansion, Clearwater, FL	4/94	131
	FY 1994 OVERALL TOTAL	1,603

POLLUTION EQUIPMENT FOLLOW-ON FUNDING

(503) SENATOR LAUTENBERG: In regard to your request for $802,000 for pollution response equipment follow-on, given the delays that you have experienced in the delivery of this equipment, what portion of the $802,000 originally requested will be required in FY 1994? What are the anticipated delivery dates for this equipment.

ADMIRAL KIME: Based on the projected equipment delivery schedule below and anticipated full start of the maintenance contract in the first quarter, 90% of the requested $802,000 or $722,000 is required in FY 1994.

FY 91 & FY 92 EQUIPMENT DELIVERY DATES

Equipment	Delivered By Oct 93	Remaining units Delivered By:	Total Qty Ordered	% of All Equip Delivered FY 94
Inflatable Boom	15		15	100%
VOSS	22		22	100%
Pumps/Prime Movers	44	Mar 94	67	100%
Low-bed Trailers	93	Nov 93	106	100%
Foam-Filled Boom	110	May 94	190	100%
Inflatable Barges	18	Sep 94	63	86%
Dracone Off-Loading	0	Apr 94	6	100%
Dry Storage Shelters	0	Sep 94	18	100%
Mobile Cranes	0	Jul 94	3	100%
Comms Equip Upgrade	0	Sep 93	3	100%
Skimming Barrier Equip	0	Fall 93 & Summer 94	10	100%

AIR STATION WASHINGTON

(504) SENATOR LAUTENBERG: Please provide a complete breakout of resources associated with Air Station Washington, including personnel costs (including general detail), operating costs and any other relevant resources. Please list the billets assigned to Air Station Washington and an inventory of all aircraft at Air Station Washington?

ADMIRAL KIME: Major resources at Air Station Washington include two aircraft (CG-01 and CG-02), a portion of Hangar 6 subleased from the FAA, and Coast Guard personnel.

O&M costs are primarily linked to the aircraft and the facility. The following administrative fund categories and associated FY94 budgeted amounts apply:

AFC-30E	(aircraft fuel @ $1.00/gallon)	$450,000
AFC-30	(lease, utilities, travel, consumables & unit level aircraft maintenance)	$270,000
AFC-41	(depot level aircraft maintenance)	$770,000

FY94 standard personnel costs, excluding the general detail, amount to $1,217,000. Including the general detail, personnel costs would be $1,363,000. The personnel allowance for Air Station Washington is 6 Officers, 1 Warrant Officer and 16 Enlisted. With general detail, the billets total 26. The following table outlines specific billets:

GRADE	DUTY
CDR	Commanding Officer
CDR	Executive Officer
LCDR	Operations Officer
LT	Flight Safety Officer
LT	Aviation Engineering Officer
LT	Aviator
AVI4	Aviation Engineering Maintenance
YN1	Airsta Duty
SK1	Airsta Duty
SK2	Airsta Duty
AD1	Airsta Duty
AD1	Airsta Duty
AD2	Airsta Duty
AT1	Airsta Duty
AT1	Airsta Duty
AT1	Airsta Duty
AT2	Airsta Duty
AE1	Airsta Duty
AE2	Airsta Duty
AE2	Airsta Duty
AMC	Airsta Duty
AM1	Airsta Duty
AM2	Airsta Duty

The unit's aircraft inventory is:

AIRCRAFT TYPE

VC-11A (Gulfstream II)
VC-4A (Gulfstream I)

(505) SENATOR LAUTENBERG: Does the Coast Guard finance the entire maintenance and operating costs of the Secretary's Gulfstream IV aircraft?

ADMIRAL KIME: No. Coast Guard funds are not used to finance any of the maintenance and operating costs associated with the FAA Gulfstream IV aircraft.

(506) SENATOR LAUTENBERG: Please describe any Department of Transportation operations which are part of or adjacent to Coast Guard Air Station Washington, for which the Coast Guard participates in part or in whole in the operating, maintenance or personnel costs.

ADMIRAL KIME: Through an Interagency Support Agreement, the Coast Guard subleases a portion of Hangar 6 from the FAA. Rental and utility costs to the Coast Guard are apportioned from total costs to the facility on the basis of the amount of square footage devoted solely to Coast Guard use (4,250 square feet), plus the Coast Guard's portion of FAA/CG shared space (5,481 square feet). 9,731 square feet of the hangar's 50,096 square feet are used by the Coast Guard. This figure represents twenty percent of the available space. Therefore, the Coast Guard's share of utility costs is twenty percent. The FAA is responsible for all facility maintenance on a non reimbursable basis.

FY 1994 CONGRESSIONAL STAGE PLANNING FACTORS

(507) SENATOR LAUTENBERG: Please provide as soon as it is available a copy of the FY 1994 congressional stage Planning Factors in the identical form as those disseminated to Coast Guard units.

ADMIRAL KIME: The FY 1994 Congressional Stage Planning Factors are under review and scheduled for publication not later than early August 1993. The document will be delivered upon publications.

MANPOWER REQUIREMENTS

(508) SENATOR LAUTENBERG: Please provide for the record a complete copy of the "Manpower Requirements" documents transmitted from the Chief of Staff to the Office of Personnel for FY 1993 and FY 1994.

ADMIRAL KIME: The Manpower Requirements document for FY 1993 is attached. The Manpower Requirements document for FY 1994 will not be transmitted to the Office of Personnel until after enactment of the Coast Guard's FY 1994 appropriation.

U.S. Department
of Transportation

United States
Coast Guard

Memorandum

Subject: FY93 MANPOWER REQUIREMENTS DOCUMENT

Date: 10 NOV 1992
5320

Reply to: G-CPA/X7-2935
Attn. of: CAPT Collins

From: Chief of Staff

To: Chief, Office of Personnel and Training

Ref: (a) Temporary Active Duty (TEMAC), COMDTINST 1330.1C

1. This memo constitutes your authority to develop and execute the Military Employment Capability Plan (MECP) for FY93. You should plan to meet our personnel requirements following the guidance and constraints set out below.

2. Based on our congressional appropriations, I have established the FY93 Manpower Requirements (MANREQ) and will fund the FY93 MECP as follows:

a.	End of Year Strength	38,900
b.	Full time equivalents	39,163
c.	AFC-01 military pay target	$1,238,383,000

3. As the next step in this process, please provide me with your MECP by 30 November 1992. In your MECP, please set out your plan for meeting the MANREQ and outline any difficulties you foresee. I also ask that you enclose appropriate supporting documents such as your monthly strength projections for the military workforce.

4. I strongly support the steps you have taken to closely manage the use of TEMAC resources. The number of FTE available for TEMAC in FY93 is set at 150 and includes 17.5 FTE for Ninth District SUMMERSTOCK, 1 FTE for VMS Louisville, and 3 FTE for FOSC Valdez. The remaining 128.5 FTE shall be allocated by your office consistent with the guidance set out in reference (a).

5. You will be managing our personnel work force during a challenging period. Please keep me advised throughout FY93 on your progress toward our military workforce targets.

R. E. Kramek
ROBERT E. KRAMEK

Encl: (1) Quarterly MANREQ Increment by Paygrade and Initiative
(2) Forecast EOYS by Rating and Paygrade

FY93 MANREQ	FLAG	O-6	O-5	O-4	O-3	O-2	CWO	E-9	E-8	E-7	E-6	E-5	E-4	E-3
CURRENT ALLOWANCE 10/29/92	31	360	711	1138	1957	1675	1543	296	580	2840	5748	6427	6851	4896
FY93														
FORECAST BILLETS 12/31/93	31	359	711	1142	1960	1671	1544	296	580	2844	5743	6414	6845	4887
FORECAST BILLETS 3/31/93	31	359	711	1143	1963	1671	1546	296	579	2849	5747	6423	6848	4887
FORECAST BILLETS 6/30/93	31	357	707	1162	2005	1679	1563	296	588	2861	5774	6467	6870	4897
FORECAST BILLETS 9/30/93	31	357	708	1163	2007	1686	1564	296	588	2866	5782	6476	6885	4909

FY93 MANREQ	E-2	E-1	CO	CWO	ENLIST	OCS	CADET	PHS		TOTAL FTP	TOTAL FTE
CURRENT ALLOWANCE 10/29/92	1750	581	5872	1543	29969	71	854	167	0	38476	
FY93											
FORECAST BILLETS 12/31/93	1749	581	5874	1544	29939	71	854	167	0	38449	9612.3
FORECAST BILLETS 3/31/93	1749	581	5878	1546	29959	71	854	167	0	38475	9618.8
FORECAST BILLETS 6/30/93	1750	581	5941	1563	30084	71	854	167	0	38680	9670.0
FORECAST BILLETS 9/30/93	1760	581	5952	1564	30143	71	854	167	0	38751	9687.8

	FTE ESTIMATE
FY93 TOTALS	38588.75

RCP	BUD REF	DESCRIPTION	FLAG	O-6	O-5	O-4	O-3	O-2	CWO	E-9	E-8	E-7	E-6	E-5
													Q1 93	
207.00		PREPOS RESP EQUIP										1		
R&D		R & D INCREMENT				3			2					
BUDGET		MWR REDUCTION											-1	-1
EC&R		EC&R INCREMENT					2					5		
RT		RT REDUCTION		-1				-3	-1			-1	-3	-9
415.00		DECOMM 82' WPB						-1				-1	-1	-3
OPSTAGE		TOPS - CG/DOD HHG SYSTEM				1	1							
		TOTAL INCREMENT		-1		4	3	-4	1			4	-5	-13
		FORECAST ALLOWANCE 12/31/92	31	359	711	1142	1960	1671	1544	296	580	2844	5743	6414

RCP	BUD REF	DESCRIPTION	E-4	E-3	E-2	E-1	CO	CWO	ENLIST	OCS	CADET	PHS	TOTAL
207.00		PREPOS RESP EQUIP							1				1
R&D		R & D INCREMENT					3	2					5
BUDGET		MWR REDUCTION	-3	-5					-10				-10
EC&R		EC&R INCREMENT					2		5				7
RT		RT REDUCTION	-3	-1			-4	-1	-17				-22
415.00		DECOMM 82' WPB		-3	-1		-1		-9				-10
OPSTAGE		TOPS - CG/DOD HHG SYSTEM					2						2
		TOTAL INCREMENT	-6	-9	-1		2	1	-30				-27
		FORECAST ALLOWANCE 12/31/92	6845	4887	1749	581	5874	1544	29939	71	854	167	38449

RCN	BUD REF	DESCRIPTION	FLAG	O-6	O-5	O-4	O-3	O-2	CWO	E-9	E-8	E-7	E-6	E-5
													Q2 93	
343.00		LORSTA UPOLU POINT									-1		-2	-2
OPSTAGE		WORK-LIFE INITIATIVES				1	3		1			5	1	4
BUDGET		CIWS							1				5	7
		TOTAL INCREMENT				1	3		2		-1	5	4	9
		FORECAST ALLOWANCE 3/31/93	31	359	711	1143	1963	1671	1546	296	579	2849	5747	6423

RCP	BUD REF	DESCRIPTION	E-4	E-3	E-2	E-1	CO	CWO	ENLIST	OCS	CADET	PHS	TOTAL
343.00		LORSTA UPOLU POINT	-1						-6				-6
OPSTAGE		WORK-LIFE INITIATIVES					4	1	10				15
BUDGET		CIWS	4					1	16				17
		TOTAL INCREMENT	3				4	2	20				26
		FORECAST ALLOWANCE 3/31/93	6848	4887	1749	581	5878	1546	29959	71	854	167	38475

RCP	BUD DESCRIPTION REF	FLAG	O-6	O-5	O-4	O-3	O-2	CWO	E-9	E-8	E-7	E-6	E-5	E-4	E-3
												Q3 93			
83.12	S&EH SUPPORT RQMTS				1	2	1	1			4	5	8	2	
AC&I	AC&I		-2	-4	2	2	7	-3		5	2	5	7		
159.00	SHORE FAC CONST F/O												8		
504.00	TRAINING					2				2	1				
MMA	VALIANT			1	1	2	7	1			6	11	10	15	12
202.00	MARINE SFY TRNG/ASSIST				2	2		1			2	2			
MMA	DAUNTLESS			-1	-1	-2	-7	-1			-6	-11	-10	-14	-12
205.00	ZEBRA MUSSELS									1		4	3		
208.00	MARINE INSP PROG RES				4	9		14							
304.00	SAR FACILITY F/O				1			1				2	6	5	6
605.00	IRM FOLLOW ON					12				1		1			
309.00	NEW STATION KAUAI										1	2	2		
310.00	ESTAB SAR FAC-SALEM											2		-1	3
341.00	DIFFERENTIAL GPS					2		3				1		1	
FY92	AIRFAC CHARLESTON											1			
410.00	110' WPB CREWING/MAINT													12	
442.00	FISHERIES LE STAFF				5										
517.00	CG OWNED O&M BILLETS										2	2	10	2	1
MANREQ	SK TO YN CONVERSION														
152.00	SHORE FACILITY MANAGEMENT				4	11									
	TOTAL INCREMENT		-2	-4	19	42	8	17		9	12	27	44	22	10
	FORECAST ALLOWANCE 6/31/93	31	357	707	1162	2005	1679	1563	296	588	2861	5774	6467	6870	4897

RCP	BUD REF	DESCRIPTION	E-2	E-1	CO	CWO	ENLIST	OCS	CADET	PHS	TOTAL	REMARKS
83.12		S&EH SUPPORT RQMTS			4	1	19				24	
AC&I		AC&I			5	-3	19				21	
159.00		SHORE FAC CONST F/O					8				8	
504.00		TRAINING			2		3				5	
MMA		VALIANT	10		11	1	64				76	
202.00		MARINE SFY TRNG/ASSIST			4	1	4				9	
MMA		DAUNTLESS	-10		-11	-1	-63				-75	
205.00		ZEBRA MUSSELS					8				8	
208.00		MARINE INSP PROG RES			13	14					27	
304.00		SAR FACILITY F/O			1	1	19				21	
605.00		IRM FOLLOW ON			12		2				14	
309.00		NEW STATION KAUAI					5				5	
310.00		ESTAB SAR FAC-SALEM	1				5				5	
341.00		DIFFERENTIAL GPS			2	3	2				7	— 93-0133-0136
FY92		AIRFAC CHARLESTON					1				1	
410.00		110' WPB CREWING/MAINT					12				12	- 93-0118-0127
442.00		FISHERIES LE STAFF			5						5	- 93-0108-0111
517.00		CG OWNED O&M BILLETS					17				17	
MANREQ		SK TO YN CONVERSION										
152.00		SHORE FACILITY MANAGEMENT			15						15	
		TOTAL INCREMENT	1		63	17	125				205	
		FORECAST ALLOWANCE 6/31/93	1750	581	5941	1563	30084	71	854	167	38680	

RCP	BUD REF	DESCRIPTION	FLAG	O-6	O-5	O-4	O-3	O-2	CWO	E-9	E-8	E-7	E-6	E-5
													Q4 93	
MMA		STEADFAST			1	1	2	7	1			6	11	10
343.00		CENPAC LORSTA CLOSURE TEAM										-1	-3	-1
		TOTAL INCREMENT			1	1	2	7	1			5	8	9
		FORECAST ALLOWANCE 9/31/93	31	357	708	1163	2007	1686	1564	296	588	2866	5782	6476

RCP	BUD REF	DESCRIPTION	E-4	E-3	E-2	E-1	CO	CWO	ENLIST	OCS	CADET	PHS	TOTAL
MMA		STEADFAST	15	12	10		11	1	64				76
343.00		CENPAC LORSTA CLOSURE TEAM							-5				-5
		TOTAL INCREMENT	15	12	10		11	1	59				71
		FORECAST ALLOWANCE 9/31/93	6885	4909	1760	581	5952	1564	30143	71	854	167	38751

FORECAST BILLET ALLOWANCE
DATE: 30 SEP 93

PAYGRADE	9	8	7	6	5	4	3	2	1	TOTAL
OFF	4	13	14	357	708	1163	2007	1686	0	5952
CWO	0	0	0	0	0	1564	0	0	0	1564
AD	12	29	69	205	248	279	0	0	0	842
AE	7	11	40	133	183	178	0	0	0	552
AM	9	12	50	142	199	228	0	0	0	640
ASM	4	6	31	65	90	100	0	0	0	296
AT	6	16	56	162	196	216	0	0	0	652
BM	59	105	423	815	810	912	1	0	0	3125
DC	6	18	92	222	244	218	12	0	0	812
EM	9	36	126	254	240	240	37	0	0	942
ET	17	38	172	325	388	418	0	0	0	1358
FT	2	4	29	41	61	57	0	0	0	194
GM	4	7	50	126	200	134	0	0	0	521
HS	9	16	103	192	219	227	0	0	0	766
MK	28	58	493	790	992	1139	61	0	0	3561
MST	5	11	56	104	116	127	0	0	0	419
MU	1	3	17	23	0	0	0	0	0	44
PA	1	4	16	22	23	20	0	0	0	86
PO	34	32	204	221	145	43	0	0	0	679
QM	13	21	114	311	229	268	10	0	0	966
RD	4	6	56	71	97	105	0	0	0	339
RM	20	24	154	335	352	492	0	0	0	1377
SK	13	36	126	342	395	388	3	0	0	1303
SS	5	33	131	276	390	406	0	0	0	1241
ST	3	5	29	20	32	60	0	0	0	149
TT	4	6	31	68	62	70	0	0	0	241
YN	21	51	198	517	565	560	17	0	0	1929
SN	0	0	0	0	0	0	3524	1438	581	5543
FN	0	0	0	0	0	0	1244	322	0	1566
ENL TOTAL	296	588	2866	5782	6476	6885	4909	1760	581	37659

PERSONNEL ALLOWANCE AMENDMENTS

(509) SENATOR LAUTENBERG: Please provide a list of all personnel allowance amendments with a brief description occurring during FY 1992 and to date in FY 1993.

ADMIRAL KIME: The Coast Guard's personnel accounting computer system cannot provide the information in the manner you have requested. Our personnel allowance amendments use a source document as the reference for describing what occurred. Information is very generic, but refers to specific paper reference files which provide the background information you requested. This source document by itself will not provide a description of the action taken.

The Coast Guard issued over 1900 personnel allowance amendments (PAAs) in FY 1992 and issued over 1200 to date in FY 1993. Each amendment may contain up to 30 or more separate transactions ranging from simple technical corrections such as billet or position descriptions to position or billet actions such as "moves, additions, or deletions." Providing a list of all personnel allowance amendments during FY 1992 and FY 1993 with the information you requested will require a manual records check on each amendment issued and a separate review of each transaction.

As discussed with the Subcommittee staff, we will provide you with the personnel allowance amendment information for billets associated with Work-Life, LEDETS, and all transactions where more than 10 changes were made. My staff will keep you advised as to the date we will be able to provide you with this information.

MID YEAR ADJUSTMENTS

(510) SENATOR LAUTENBERG: What recurring and non-recurring adjustments to the Coast Guard's operating budget were made since publication of the FY 1993 OPSTAGE in order to fund other critical priority areas? Please provide a brief description of each adjustment.

ADMIRAL KIME: The Coast Guard OPSTAGE financial plan is a managerial tool through which the Service plans spending by category within the Operating Expenses appropriation; it is a plan, not an obligation, or commitment. It is not expected that the plan be inflexibly executed in the form it takes at the beginning of the fiscal year. In fact, sound administration of the appropriation requires that hundreds of changes to the plan be made each year due to the dynamic nature of Coast Guard operations and support requirements.

The primary purpose of the OPSTAGE financial plan is to provide a macro-level planning document from which more detailed financial plans are developed at every level of the Coast Guard. It is a starting point from which adjustments are made as the year progresses. The OPSTAGE also serves as a vehicle for documenting changes in the financial plan from the prior year, thereby assisting in the long-term management of accounts such as military pay and health care expenses. Many of these costs, by their nature, cannot be accurately predicted a year in advance because they fluctuate as a result of operating tempo, random variation, and hundreds of external forces ranging from the price of fuel to the foreign exchange value of the U.S. dollar.

The Coast Guard works hard to mitigate the effect of these fluctuations on operations, managing financial resources so that operational and support priorities are met using the funds appropriated by the Congress.

In all cases, the Coast Guard executes financial management with a focus on mission performance and compliance with the President's Budget Request, appropriations law, and Congressional guidance. The information requested is provided in the following table:

[CLERK'S NOTE.--Due to its size, the document entitled, ''Fiscal Year 1993 CIFP Report,'' does not appear in the hearing but is available for review in the subcommittee files.]

(511) SENATOR LAUTENBERG: Of the adjustments made, were the Coast Guard's actions in implementing the recurring and non-recurring reductions consistent with reprogramming procedures established in FY 1990?

ADMIRAL KIME: Managing the $2.6 billion Operating Expenses appropriation amidst the numerous changes in priorities and funding requirements which occur during the course of the year is a dynamic process which requires a certain amount of flexibility; this flexibility is manifested in the adjustments described in the answer to the previous question. In making these adjustments, the Coast Guard believes that it has complied with the reprogramming procedures set forth in House Report 101-315, in that: incremental funds appropriated by Congress have been utilized as described in the Coast Guard's Budget Estimates; no facilities have been closed or have had their operational capability significantly changed; no permanent significant changes have been made in the mission of a unit or facility; no new programs have been initiated, nor have significant changes in scope been effected; and allocations specifically denied, limited or increased by Congress have not been changed, except in cases where notification to Congress has occurred.

Recognizing that there is room for interpretation within existing guidelines, over the last year the Coast Guard and the Subcommittee staff have met to reach an agreement on the form and content of additional guidance which will clarify the extent of agency flexibility in meeting the spirit and letter of these guidelines.

(512) SENATOR LAUTENBERG: Please supply a listing and brief description (no more than a paragraph) of each RCP submitted to the Chief of Staff's Office for FY 1993 and FY 1994. Also include the action taken on each RCP.

ADMIRAL KIME: Attached is a listing of the Resource Change Proposals (RCPs) submitted to the Office of the Chief of Staff in FY 1994. The RCPs submitted in FY 1993 remain as reported on page 262 of last year's hearing record.

U. S. COAST GUARD
OPERATING EXPENSES
RCP SUMMARY REPORT BY RCP NUMBER
FY 94

RCP No	Qtr Code	RCP Title	(FTP's) CO	WO	Enl	Mil	Civ	(FTE's) Mil	Civ	Pers$(K)	OPS$(K)	Total Cost
84.00	4	SHORE FACILITY S&EH TRAINING REQUIREMENTS	0	0	0	0	0	0	0	0	543	543
85.00	4	VESSEL SAFETY PROGRAM SUPPORT REQUIREMENTS	0	1	17	18	0	18	0	876	3,206	4,082
86.00	4	HEALTH CARE COST MANAGEMENT	0	0	0	0	0	0	0	0	14,270	14,270
100.00	4	Aeronautical Engineering Support Deficit Reco	0	0	0	0	0	0	0	0	15,227	15,227
101.00	4	Aeronautical Engineering Product Line Support	5	0	0	5	5	5	5	829	628	1,457
102.00	4	Aeronautical Engineering Technical Manual Mai	0	0	0	0	8	0	8	491	980	1,471
113.00	4	SHORE FACILITY MANAGEMENT	1	0	0	1	23	1	23	1,726	10,220	11,946
114.00	4	AC&I SHORE FACILITY CONSTRUCTION FOLLOW-ON	0	0	0	0	0	0	0	0	2,856	2,856
161.00	4	REIMBURSEMENTS TO DOD FOR UTILIZATION OF DISP	0	0	0	0	0	0	0	0	1,300	1,300
162.00	4	IMPLEMENTATION OF CENTRALIZATION SHIPBOARD SU	0	0	0	0	0	0	0	0	577	577
163.00	4	ALLOCATION OF RESOURCES FOR PROPERTY MANAGEME	0	0	0	0	15	0	15	1,011	310	1,321
186.00	4	IND ACTIVITY SAFETY ENVIRONMENTAL HEALTH SUPP	0	0	13	13	0	13	0	556	0	556
201.00	4	PASSENGER VESSEL SAFETY PROGRAM	7	0	0	7	6	7	6	1,020	184	1,204
202.00	4	NATIONWIDE BALLAST WATER MANAGEMENT PROGRAM	0	0	60	60	0	60	0	2,373	164	2,537
203.00	4	PASSENGER VESSEL SEC. SPECIALIST FOR FOREIGN	9	0	0	9	0	9	0	650	106	756
204.00	4	ENFORCEMENT OF ANNEX V SPECIAL AREA FOR CARIB	5	0	0	5	0	5	0	352	551	903
205.00	4	IMO COOPERATIVE INVESTIGATION PROGRAM	17	0	0	17	6	17	6	1,796	176	1,972
206.00	4	OPA 90 TRAINING REQUIREMENTS	14	5	0	19	6	19	6	1,780	1,800	3,580
207.00	4	COAST GUARD/STATE COORDINATION-OPA 90	0	0	0	0	0	0	0	0	300	300
208.00	4	LOCAL RESPONSE EQUIPMENT - MAINT. & REPLACEME	0	0	2	2	0	2	0	77	192	269
209.00	4	CONTAINER INSPECTION PROGRAM	1	5	139	145	0	145	0	5,999	281	6,280
210.00	4	NSF & PREPOSITIONED RESPONSE EQUIP. MAINT.FOL	0	0	0	0	0	0	0	0	789	789
211.00	4	MARINE INSPECTION PROGRAM RESOURCES	12	21	0	33	0	33	0	2,413	0	2,413
300.00	4	STANDARD BOAT MAINTENANCE FUND	0	0	0	0	0	0	0	0	5,600	5,600
301.00	4	RESCUE & SURVIVAL EQUIPMENT MODERNIZATION	0	0	0	0	0	0	0	0	4,500	4,500
307.00	4	NONSTANDARD BOAT REPLACEMENT FUND	0	0	0	0	0	0	0	0	1,718	1,718
320.00	4	WATERWAYS FOLLOW-ON	0	0	0	0	0	0	0	0	117	117
324.00	4	IALA CONFERENCE MANAGEMENT FUNDING	0	0	0	0	0	0	0	0	140	140
330.00	4	VTS UPGRADE FOLLOW ON SUPPORT	0	0	0	0	0	0	0	0	960	960
331.00	4	VTS PERSONNEL	0	0	40	40	48	40	48	4,724	0	4,724
332.00	4	VTS RECURRING REPLACEMENT PROJECTS	0	0	0	0	0	0	0	0	3,000	3,000
341.00	4	DIFFERENTIAL GPS	0	2	32	34	0	34	0	1,447	1,745	3,192
343.00	4	CLOSURE & RESTORATION OF OVERSEAS LORAN SITES	-5	-5	-95	-105	0	-105	0	-4,325	-8,076	-12,401
344.00	4	CLOSE CG ACTEUR AND CG FAR EAST SECTION	-6	-6	-23	-35	0	-35	0	-1,841	-544	-2,385
345.00	4	INCREASED COSTS OF OMEGA SYSTEM OPERATION	0	0	0	0	0	0	0	0	235	235
364.00	4	BRIDGE ADMINISTRATION PERMIT STAFF SUPPORT	0	0	0	0	14	0	14	1,109	0	1,109
402.00	4	AEW C-130 FOLLOW ON	0	0	0	0	0	0	0	0	1,075	1,075

RCP No	Qtr Code	RCP Title	(FTP's) CO	WO	Enl	Mil	Civ	(FTE's) Mil	Civ	Pers$(K)	OPS$(K)	Total Cost
403.00	4	PACAREA C-130 PATROL HOUR INCREASE	0	0	29	29	0	29	0	1,079	1,614	2,693
404.00	4	COCKPIT RESOURCE MANAGEMENT TRAINING	1	0	1	2	0	2	0	129	350	479
405.00	4	HH-60J FOLLOW-ON	0	0	0	0	0	0	0	0	516	516
408.00	4	AUSTERE LOGISTICS AIRCRAFT	0	0	3	3	0	3	0	106	786	892
409.00	4	HH-65 MAIN TRANSMISSION GEARBOX (MBG) UPGRADE	0	0	0	0	0	0	0	0	5,400	5,400
425.00	4	FLAR FOLLOW-ON	0	0	0	0	0	0	0	0	262	262
442.00	4	LIVING MARINE RESOURCE STAFF REQUIREMENTS	23	0	2	25	0	25	0	1,777	0	1,777
444.00	4	LIVING MARINE RESOURCE TRAINING REQUIREMENTS	7	0	48	55	0	55	0	2,597	600	3,197
447.00	4	SPANISH LINGUIST TRAINING/SDAP	0	0	0	0	0	0	0	0	983	983
448.00	4	LAW ENFORCEMENT MODEL SIMULATION MODEL (LESIM	0	0	0	0	0	0	0	0	175	175
450.00	4	GPS FOLLOW-ON PHASE II	0	0	0	0	0	0	0	0	148	148
471.00	4	INVESTIGATIONS PROGRAM OPERATIONAL SUPPORT	0	0	0	0	10	0	10	674	592	1,266
472.00	4	BUDGET/PROGRAM/PLANNING ANALYST	1	0	0	1	0	1	0	79	2	81
473.00	4	TECHNICAL SURVEILLANCE COUNTERMEASURERS INSPE	0	0	1	1	3	1	3	277	187	464
480.00	4	DEFENSE DATA NETWORK (DDN)	0	0	0	0	0	0	0	0	675	675
490.00	4	OPERATIONS MANAGEMENT INFORMATION SYSTEM (OMI	0	0	0	0	1	0	1	67	220	287
501.00	4	PERSONNEL COSTS FOR SALARIED CIVILIANS	0	0	0	0	0	0	0	0	8,000	8,000
502.00	4	FEDERAL EMPLOYEE COMPENSATION FUND INCREASE	0	0	0	0	0	0	0	0	378	378
507.00	4	OWNED HOUSING PROGRAM MGMNT. OPS. & MAINTENAN	0	0	55	55	1	55	1	2,129	7,154	9,283
508.00	4	CG INTERFACE WITH DOD AUTOMATED HHG SYSTEM (T	2	0	0	2	0	2	0	169	2,445	2,614
509.00	4	LEASED HOUSING	1	0	37	38	0	38	0	1,527	9,205	10,732
510.00	4	HUMAN RESOURCE INITIATIVES	3	0	20	23	9	23	9	1,682	210	1,892
511.00	4	TRAINING WORKFORCE 2000	2	2	9	13	14	13	14	2,040	3,239	5,279
514.00	4	MASS TRANSIT BENEFIT PROGRAM	0	0	0	0	5	0	5	325	5,443	5,768
517.00	4	OER QUALITY REVIEW STAFF	2	1	1	4	1	4	1	336	39	375
518.00	4	CIVILIAN EMPLOYMENT SUPPORT ISSUES	0	0	0	0	13	0	13	961	295	1,256
525.00	4	FUNDING FOR MANDATED REIMBURSABLE ACCOUNTS	0	0	0	0	0	0	0	0	196	196
540.00	4	FUNDING FOR PROPOSED PAY/ENTITLEMENTS INITIAT	0	0	0	0	0	0	0	0	25,146	25,146
550.00	4	FUNDING FOR MILITARY PAY COMPENSATION ISSUES	0	0	0	0	0	0	0	0	47,760	47,760
601.00	4	IMPROVED IRM GUIDANCE, PLANNING AND REVIEW	3	0	0	3	11	3	11	1,175	800	1,975
602.00	4	CIWG FOLLOW-ON	0	0	0	0	0	0	0	0	1,035	1,035
603.00	4	AUTOMATED INFO SYSTEMS (AIS) DISASTER RECOVER	0	0	0	0	0	0	0	0	300	300
604.00	4	TELECOMMUNICATION SUPPORT RESOURCES	0	0	26	26	0	26	0	1,016	0	1,016
605.00	4	APO/FPO MAIL TRANSPORTATION COST ASSESSMENT	0	0	0	0	0	0	0	0	1,164	1,164
606.00	4	COMMERCIAL SATELLITE COMMUNICATIONS ON CG CUT	0	0	0	0	0	0	0	0	300	300
607.00	4	IRM FOLLOW-ON	0	0	0	0	0	0	0	0	3,000	3,000
609.00	4	TRANSPORTABLE COMMUNICATIONS CENTRALS (TCC)	0	0	0	0	0	0	0	0	550	550
610.00	4	LEIS II CG STANDARD WORKSTATION REQUIREMENTS	0	0	0	0	0	0	0	0	2,888	2,888
611.00	4	VHF-FM HIGH LEVEL SITE UPGRADE OE FOLLOW-ON	0	0	0	0	0	0	0	0	285	285
612.00	4	NATIONAL RESPONSE CENTER BILLET INCREASE	1	0	12	13	0	13	0	537	0	537
613.00	4	OFFICIAL MAIL FUNDING	0	0	0	0	0	0	0	0	1,300	1,300

RCP No	Qtr Code	RCP Title	CO	WO	(FTP's) Enl	Mil	Civ	(FTE's) Mil	Civ	Pers$(K)	OPS$(K)	Total Cost
760.00	4	IMPROVE FINANCIAL INTEGRITY	12	0	9	21	28	21	28	79	2,610	2,689
774.00	4	FINANCE CENTER INTEGRATED INFORMATION SYSTEM	0	0	-2	-2	6	-2	6	263	9,675	9,938
776.00	4	VALUE ENGINEERING	0	0	0	0	2	0	2	124	23	147
776.01	4	DOT BONDING ASSISTANCE PROGRAM	0	0	0	0	0	0	0	0	2,000	2,000
776.02	4	SMALL PURCHASE SUPPORT	0	12	0	12	0	12	0	878	25	903
780.00	4	QUALITY CENTER (TQM research & Training Facil	0	0	0	0	0	0	0	0	527	527
780.01	4	QUALITY MANAGEMENT BRANCH (TQM Support)	0	0	0	0	0	0	0	0	292	292
795.00	4	OSLTF CASE MANAGEMENT RESOURCES	9	6	0	15	7	15	7	1,631	35	1,666
796.00	4	IMPLEMENTATION OF NPFC IRM SYSTEMS	0	0	0	0	0	0	0	0	330	330
797.00	4	TRAINING OF FIELD PERSONNEL	0	0	0	0	0	0	0	0	321	321
801.00	4	CONTINGENCY PREPAREDNESS STRATEGIC IRM	0	0	0	0	0	0	0	0	2,047	2,047
		SubTotals:	127	44	436	607	242	607	242	44,720	216,657	261,377

FY 1994 AC&I RCPS

#	OFF	RCP #	TITLE	RCPs
			AC&I PROGRAM -- MISCELLANEOUS COSTS	
1	E		PERSONNEL AND RELATED COSTS	50000
2	E		MISC DIRECT EQUIP, MAT, TRAVEL	2000
3	A		ACQUISITION SUPPORT SERVICES	2500
			SUBTOTAL	54500
			VESSELS	
1	E		SURVEY AND DESIGN - VESSELS	1400
2	A		SEAGOING BUOY TENDERS (WLB)	114500
3	A		COASTAL BUOY TENDERS (WLM)	1700
4	A		47' MOTOR LIFEBOAT (MLB)	1450
5	A		BUOY BOATS (BUSL)	1500
6	A		POLAR I/B FOLLOW ON	3700
7	E		210' MMA	43200
8	E		CONFIGURATION MANAGEMENT	3400
9	E		POLAR CLASS RIP	7494
10	O		SHIPBOARD C&C SYS (SCCS)	3566
11	N		MACKINAW SERVICE CONTINUATION	3100
12	N	522	WLR SHIP'S SVS GENERATOR IMPROVEMENT	1670
13	O	624	SURFACE SEARCH RADAR REPLACEMENT	5600
14	O	621	210' TACTICAL DATA COMMS (NTCS-A)	994
15	O	627	270' DATA COMMS (OTCIXS)	642
16	E	281	FT4A GAS TURBINE LOGISTICS	3000
17	N	524	SELF-PROPELLED BARGES	1500
18	N	523	WLB SM BOAT REPLACEMENT/REPAIR	2200
			SUBTOTAL	200616
			AIRCRAFT	
1	A		OPBAT HELICOPTERS	60000
2	O		TRAFFIC ALERT & COLL AVOID SYS (TCAS)	7400
3	O		GPS INSTALLATION PH IV	3525
4	O		COCKPIT VOICE/FLIGHT DATA RECORDER	7600
5	O		HU-25B AIREYE PH II	6400
6	O	606	A/C SATELLITE COMMS	7226
7	O	608	H-65/HU-25 SIMULATOR UPGRADE	1291
8	O	604	VC-4A RENOVATION & AVIONICS UPGRADE	2100
9	O	603	AUSTERE LOGISTICS AIRCRAFT	3312
10	O	409/OE	HH-65 TRANSMISSION GEARBOX UPGRADE	5400
11	O		RG-8 UPGRADE	
			SUBTOTAL	104254

FY 1994 AC&I RCPS

#	OFF	RCP #	TITLE	RCPs
			OTHER EQUIPMENT	
1	E		AUTO INTEGR LOGISTICS (SAIL)	12950
2	E		DEFENSE LOGISTICS MODERNIZATION	4900
3	E		COMPUTER SYS FOR SUPPLY CTR	1800
4	N		DIFFERENTIAL GPS	6550
5	N		BUOY REPLENISHMENT	4000
6	T		DISTRIBUTED INFO SYSTEM (DIS)	3000
7	T		COMM STA AUTOMATION PH III	3200
8	T		GLOBAL MARITIME DISTRESS SYS	1000
9	T		COMMERCIAL SATELLITE COMMS PH II	2000
10	M		MARINE SAFETY NETWORK (MSIS II)	5000
11	M		VESSEL I. D. SYSTEM	5250
12	K		MGNT INFO SYS FOR MEDICAL	3200
13	P		PMIS/JUMPS II	1200
14	N		VTS LA/LB PHASE II (SANTA BARBARA)	3170
15	N	585	VTS BOSTON	5000
16	N	584	VTS CORPUS CHRISTI	4900
17	N	583	VTS MOBILE	6200
18	N	582	VTS SURVEY & DESIGN	3400
19	A		VTS 2000	
20	T	807	VHF-FM HAND-HELD RADIO REPLACEMENT	2000
21	T	803	CONVERSION OF APPLICATIONS SOFTWARE	15000
22	O	690	OPS MANAGEMENT INFO SYSTEM	1027
23	O	680	ELECTRO OPT PROCESSING & TRANS SYS	2852
24	T	804	COMMUNICATIONS SYSTEM 2000	350
25	P	520	PERSONNEL & TRAINININING AUTOMATION	1350
26	M	401	ENHANCE MARINE SAFETY TECH CAPABILITY	600
27	N	332/OE	VTS REPLACEMENT PROJECTS	3000
28	C	774/OE	FINANCE CTR INTEGRATED INFO SYS	10300
29	T		MINOR AIS PROJECTS	2600
			SUBTOTAL	115799

FY 1994 AC&I RCPS

#	OFF	RCP #	TITLE	RCPs
			SHORE FACILITIES AND AIDS TO NAVIGATION	
1	E		SURVEY AND DESIGN - SHORE	18000
2	N	520	WATERWAYS SRA PROJECTS	15500
3	E		MINOR AC&I PROGRAM	8000
4	E		PUBLIC FAMILY QUARTERS	36000
5	N	540	OVERSEAS LORAN CLOSURES	10300
6	E		GRP NORTH BEND OR - MED/DENTAL BLDG	2700
7	E		SC SAN PEDRO CA - MED/DENTAL BLDG	3700
8	E		AS BRNQN PR - RINSE RACK & FUEL FARM	6300
9	E		SC PORTSMOUTH VA - EXPAND UPH PH II	3600
10	E		CAMSLANT PRTSMTH VA - TRNSMTTR BLDG	4400
11	E		AS MIAMI FL - UPGRADE PH II	20800
12	E		CGY CURTIS BAY MD - SHIP HANDLING FAC	21400
13	E		BASE KETCHIKAN AK - BREAKWATER	1400
14	E		GRP PORT ANGELES WA - MED/DENTAL BLDG	2800
15	E		GRP CAPE MAY NJ - GRP SUPPORT BLDG	8100
16	E		STA PROVINCETOWN MA - WAVE BARRIER	1100
17	E		SC PORTSMOUTH VA - EXPAND GR HAMPTON	5500
18	E		SC ALAMEDA CA - MSO SF BLDGING	4500
19	E		TC CAPE MAY NJ - CHILD DEV CTR	2000
20	E		TC PETALUMA CA - REPLACE WATER MAIN	2800
21	E		A/S SITKA AK - ATON SUPPORT BLDG	2900
22	E		BASE ST LOUIS MO - ADMIN/IND BLDG	10000
23	E		STA PORTAGE MI - RELOCATE STATION	5200
24	E		BASE SO PORTLAND ME - OPS/SANDBLAST	4500
25	E		SC KODIAK AK - COMMUNITY CENTER	1500
26	E		MOORINGS NATCHEZ MS - REPLACE	3200
27	E		TC CAPE MAY NJ - MODIFY BARRACKS	2800
28	E		BASE HONO HI - REPLACE BOAT HOUSE	4500
29	E		STA SHINNECOCK NY - RENOVATE STATION	4400
30	E		SC SEATTLE WA - PIER 35 IMPROVEMENTS	7400
31	E		SC KODIAK AK - COLD STORAGE FACILITY	4400
32	E		SC KODIAK AK - HANGAR/PUBLIC WORKS	22900
33	E		STA JUNEAU AK - RENOVATE/EXPAND STA	1400
34	E		SC ALAMEDA CA - SHORE EROSION PROJECT	1000
35	E		SC ALAMEDA CA - UPH FACILITY	4500
36	E		COMMSTA MIAMI FL - TRANSMITTER BLDG	4900
37	E		SC SEATTLE WA - RECONSTRUCT PIER 37	2800
38	E		SC NEW YORK NY - ANT/ET SHOPS	2800
39	E		TC CAPE MAY NY - RENOVATE ENL UPH	3500
40	M		ATL STRIKE TEAM NJ - STORAGE/MAINT	7388
			SUBTOTAL	280888
TOTAL SUBMISSIONS				756057

ANTICIPATED DEVIATION FROM FY 1993 BUDGET ESTIMATES

(513) SENATOR LAUTENBERG: For each of the OE increments requested in Budget Categories I, II, III, IV, V, VI, and VII, that were not adjusted by the Congress in the development of your FY 1993 budget, please identify those increments for which your actual 1993 expenditures appear to be below or exceed the amount requested by more than 5 percent. Please provide a brief explanation as to why your expenditures fell short of or exceeded the amount requested.

ADMIRAL KIME: The following items are those we now know of that are expected to deviate by at least 5 percent from the FY 1993 Budget Estimates:

4.A. Safety and Environmental Health Field Support Requirements: This item provided for 17 FTE in FY 1993. While all the positions associated with this item have been filled, they were filled later in the year than anticipated due to the limited pool of qualified candidates for these specialized jobs. Only about 11 FTE will be consumed for this initiative in FY 1993, resulting in $273,000 in personnel costs that will not be incurred in FY 1993.

4.C. Support Center Kodiak Funding Deficiency: The Coast Guard expects to apply additional funds above the $2.9M provided in FY 1993 to support the Base Operating and Support Services Contract at Support Center Kodiak. Including the FY 1993 increase, the operating base for this contract is $8.6M. At this point, it appears that FY 1993 costs may be as high as $10.6M.

5.B. Supply Center Brooklyn Relocation: The Coast Guard expects to apply additional funds above the $1.1M provided in FY 1993 to support the move of Supply Center Brooklyn. At this point, it appears that FY 1993 costs may be as high as $1.3M.

AC&I REPROGRAMMINGS

(514) SENATOR LAUTENBERG: Please list all AC&I reprogrammings in FY 1992 and FY 1993 that have been executed without congressional communication since they were below the threshold contained in the reprogramming guidelines.

ADMIRAL KIME: The following table shows all AC&I reprogrammings, by project and budget year, made during FY 1992 and FY 1993 that did not require congressional notification.

1988 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING
92	STA PANAMA CITY FL - REBUILD	$ 26,000
92	RESTRACEN YORKTOWN - MED BLDG	-$ 26,000
92	TRAINING CENTER PETALUMA CLINIC	$ 315,000
92	WATERWAYS AIDS TO NAVIGATION	-$ 1,533
92	LIGHTHOUSE MODERNIZATION	-$ 3,450
92	SURVEY AND DESIGN SHORE	-$ 21,400
92	PUBLIC FAMILY HOUSING	-$ 50,956
92	MINOR SHORE	-$ 3,880
92	ELIZ CITY, NC GROUND WATER	-$ 2,190
92	STA MONTAUK	-$ 70,960
92	STA YANKEETOWN	-$ 4,066
92	STA ST CLAIR SHORE	-$ 30,729
92	STA CRISFIELD	-$ 33,506
92	TRAINING CENTER PETALUMA UNACCOMPANIED PERSONNEL HOUSING	-$ 11,795
92	ALAMEDA CLINIC	-$ 5,440
92	MISC PROJS CLOSED OUT IN PRIOR YRS	-$ 75,095

1989 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING

92	BASE SO PORTLAND ME - MOORING	$ 16,316
92	COMMSTA KODIAK - FIRE RESTORE	-$ 16,316
92	AIRSTA SAVANNAH	$ 94,278
92	RTC YORKTOWN ADMIN BLDG	-$ 12,666
92	STA CORTEZ	-$ 81,612
92	TRAINING CENTER PETALUMA CLINIC	$ 100,000
92	STA CORTEZ	-$ 100,000

1990 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING
92	STA GREENVILLE - MOORINGS	$ 9,039
92	STA OAK ISLAND - REBUILD	-$ 9,039
92	SUPTCEN ELIZ CITY, NC - CLINIC	$ 20,000
92	TRACEN CAPE MAY - BARRACKS	-$ 20,000
92	STA TAWAS REPLACEMENT	$ 26,872
92	STA OREGON INLET	-$ 26,872
92	WATERWAYS	$ 175,000
92	STA OAK ISLAND - REBUILD	-$ 125,000
92	STA OREGON INLET	-$ 50,000

1990 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING
92	SEUS AIR INTERDICTION FACILITY	$ 730,000
92	TRACEN CAPE MAY BARRACKS	-$ 730,000
92	WATERWAYS	$ 117,155
92	MINOR SHORE PROGRAM	-$ 117,155
92	STA OREGON INLET	$ 5,553
92	BASE KETCHIKAN	-$ 5,553
93	UNDERGROUND STORAGE TANK CLEAN UP	$ 135,000
93	BASE SO PORTLAND	-$ 80,108
93	SUPTCEN SEATTLE PIER APRON	-$ 54,892
93	VTS PUGET SOUND	$ 400,000
93	SECURE COMMUNICATIONS	-$ 224,500
93	SECURE VOICE COMMUNICATIONS	-$ 175,500
93	STA OREGON INLET	$ 46,501
93	SUPTCEN SEATTLE PIER APRON	-$ 46,501

1991 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING
92	STA CAPE DISAPPOINTMENT	$ 103,042
92	ATTC ELIZABETH CITY	-$ 26,632
92	ATC MOBILE	-$ 76,410
92	MINOR SHORE PROGRAM	$ 117,155
92	WATERWAYS AIDS TO NAVIGATION	-$ 117,155
93	STA CAPE DISAPPOINTMENT	$ 48,000
93	STA BURLINGTON	-$ 48,000
93	STA CAPE DISAPPOINTMENT	$ 131,000
93	ELIZ CITY TRAINING FACILITY	-$ 61,163
93	GROUP EASTERN SHORE RENOVATION	-$ 69,837

1992 PROJECTS

FY	PROJECT TITLE	REPROGRAMMING
92	SURVEY AND DESIGN SHORE	$1,000,000
92	AIRSTA BARBERS POINT	-$ 475,000
92	ACADEMY CHILD CARE FAC	-$ 200,000
92	GROUP FORT MACON	-$ 150,000
92	WATERWAYS	-$ 175,000
93	MONTAUK POINT EROSION	$ 68,000
93	SUPTCEN SEATTLE PIER APRON	-$ 68,000
93	VTS IMPROVEMENTS	$ 300,000
93	GLOBAL MARITIME DISTRESS SYS	-$ 300,000
93	SEUS AIR INTERDICTION FACILITY	$ 8,926
93	SUPTCEN SEATTLE PIER APRON	-$ 8,926

1992 PROJECTS

FY	PROJECT TITLE	REPROGRAMMINGc
93	KODIAK POOL	$ 200,000
93	CAPE MAY TRAINING FACILITY	-$ 200,000
93	MONTAUK POINT EROSION	$ 24,000
93	SUPTCEN SEATTLE PIER APRON	-$ 24,000
93	SEUS AIR INTERDICTION FACILITY	$ 100,000
93	GROUP SANDY HOOK PIER	-$ 100,000
93	STA CAPE COD CANAL	$ 75,000
93	GROUP SANDY HOOK PIER	-$ 75,000

OIL SPILL LIABILITY TRUST FUND

(515) SENATOR LAUTENBERG: Please provide the amount of funds provided from the Oil Spill Liability Trust Fund in FY 1992 and to date in FY 1993 to pay all valid claims from injured parties resulting from pollution incidents.

ADMIRAL KIME: In FY 1992 the Oil Spill Liability Trust Fund paid $93,705 to injured parties for valid claims. To date (end of June) in FY 1993, $5,465,063 has been expended: $163,628 in claims to injured parties and $5,301,435 in pre-OPA 90 claims related to judicial/administrative decisions resulting from the EXXON VALDEZ settlement.

(516) SENATOR LAUTENBERG: Your budget request provides that $50M in FY94 funding will be derived from the Oil Spill Liability Trust Fund. Please provide a detailed accounting of which purposes and projects, or percentages of each, total to the figure of $50M for operating expenses, capital improvement, and research and development. Please include this information for FY95 with the supplemental data provided with the FY95 budget.

ADMIRAL KIME: The FY 1994 President's Budget proposes that a portion of the Coast Guard's funding be derived from the Oil Spill Liability Trust Fund (OSLTF). These amounts are based on administration estimates and are intended to defray the expenses incurred in each appropriation which correspond to authorized uses of the Fund under the Oil Pollution Act of 1990 (OPA-90). While the detail that follows gives a sense of the types of line items on which the OSLTF derivation is based, it is by no means exhaustive; a strict accounting is not possible.

In FY 1993, $25,000,000 was derived from the OSLTF in the Operating Expenses (OE) appropriation, pursuant to the FY 1993 Appropriations Act, Public Law 102-388. Since OE appropriations are based on a recurring base amount, the same $25,000,000 derivation from the OSLTF was requested to maintain the level of operations in FY 1994.

The following projects in the FY 1994 Acquisition, Construction and Improvements (AC&I) appropriation are MEP related. Other multi-mission line items also benefit MEP.

Marine Environmental Response Items	($000)
Marine Information for Safety and Law Enforcement (MISLE)	2,100
VTS Equipment replacement projects	1,000
VTS upgrade and expansion projects	1,500
VTS 2000	9,100
MISC Other Projects	2,500
Seagoing Buoy Tender Replacement (WLB)	3,800
	20,000

The following projects in the FY 1994 Research, Development, Test and Evaluation (RDT&E) appropriation support a $4,457,000 derivation from the OSLTF:

Marine Environmental Response Items:	($000)
Waterways Safety Research	327
Marine Safety Research	1,620
Marine Environmental Protection/Pollution Response	1,975
OPA-90 Regional Grant Program	500
Information Systems Technology and Development	35
	4,457

OPA-90 REGIONAL GRANT PROGRAM

(517) SENATOR LAUTENBERG: What additional research projects are envisioned under the OPA Regional Grant Program that are not covered by the Coast Guard's own FY 1994 R&D funding request?

ADMIRAL KIME: The grant research projects will be directed Research and Development (R&D) in one or more of these areas: oil spill surveillance, decision support technology, vessel damage assessment, oil spill countermeasures and cleanup, oil spill properties and behavior, and prevention. The directed research projects will come from the Oil Pollution Research and Technology Plan that was submitted to Congress by the Interagency Committee on 24 April 1992. These projects differ but compliment other projects supporting OPA-90 that are included as part of our RDT&E request.

For FY94, the Coast Guard has requested $500K to support the OPA-90 Regional Grant Program within the overall $25M RDT&E request. None of the other 12 members of the Interagency Committee requested appropriations for the OPA Regional Grant Program in FY93, and our understanding is that this is again the case in FY94.

RELOCATION OF ICC

(518) SENATOR LAUTENBERG: Please update the committee on the status of the plan to move your Intelligence Coordination Center (ICC). Has the Coast Guard received DoD funding to move the ICC? When will the ICC be moved? What costs of the new Suitland facility and moving costs will be borne by the Coast Guard?

ADMIRAL KIME: The Coast Guard plans to move the ICC in April 1994. The costs of the move will be funded by the General Defense Intelligence Program. No Coast Guard funds will be used for the move. The only Coast Guard funds expended on the ICC relocation to Suitland was $136K in FY91 AC&I Survey and Design funds. The Coast Guard agreed to fund our fair share of the design in October, 1988 well before the House Appropriations Committee mark-up of our FY91 Budget Request which failed to fund the ICC AC&I project.

LEDET BILLETS

(519) SENATOR LAUTENBERG: Please update the table on page 383 of last year's hearing record regarding the number of LEDET billets.

ADMIRAL KIME: The following table indicates the total number of LEDET billets for the period FY 1989 through 1993.

FY	Number of LEDET Billets
1989	445
1990	445
1991	443
1992	336
1993	336

THREE STAGE AC&I REQUESTS BY PROJECT

(520) SENATOR LAUTENBERG: Please provide for the record a display of your AC&I requests by project, as submitted to the Office of the Secretary of Transportation, the Office of Management and Budget, and the Congress.

ADMIRAL KIME: The following table lists the AC&I requests by projects.

DEPARTMENT OF TRANSPORTATION
COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
FY 1994 THREE STAGE BUDGET REQUEST
($000)

	OST REQUEST	OMB REQUEST	CONGRESSIONAL REQUEST
I. VESSELS:			
A. ACQUIRE VESSELS AND EQUIPMENT:			
1. SURVEY AND DESIGN - VESSELS	1,400	1,200	500
2. SEAGOING BUOY TENDERS (WLB)	114,500	58,000	45,000
3. COASTAL BUOY TENDERS (WLM)	1,700	1,700	1,700
4. 47' MOTOR LIFEBOAT (MLB)	1,500	1,500	1,000
5. BUOY BOATS (BUSL)	1,500	1,500	1,500
6. POLAR ICEBREAKER FOLLOW ON	3,700	3,700	3,700
7. CONFIGURATION MANAGEMENT	3,400	3,400	3,400
8. SHIPBOARD COMMAND AND CONTROL SYSTEM (SCCS)	3,600	3,600	3,600
9. SURFACE SEARCH RADARS	5,600	5,600	5,600
10. FT4A GAS TURBINE LOGISTICS	3,000	3,000	3,000
11. POLAR CLASS REPLACEMENT MAIN PROPULSION MONITORING AND CONTROL SYSTEM	-----	3,000	3,000
B. REPAIR, RENOVATE OR IMPROVE EXISTING VESSELS AND SMALL BOATS:			
1. 210' MAJOR MAINTENANCE AVAILABILITY (MMA)	43,200	43,200	43,200
2. POLAR CLASS ICEBREAKER RELIABILITY IMPROVEMENT PROJECT (RIP)	1,000	1,000	----
3. MACKINAW SERVICE CONTINUATION	3,100	----	----
4. RIVER BUOY TENDER (WLR) SHIP'S SERVICE GENERATOR IMPROVEMENT	1,700	----	----
5. MOTOR CARGO BOAT OVERHAUL	1,000	----	----
SUBTOTAL-VESSELS	189,900	130,400	115,200

	OST REQUEST	OMB REQUEST	CONGRESSIONAL REQUEST
II. AIRCRAFT:			
ACQUIRE NEW AIRCRAFT AND INCREASE AVIATION CAPABILITY:			
1. OPERATION BAHAMAS TURKS AND CAICOS (OPBAT) - HELICOPTER REPLACEMENT	130,000	55,200	55,200
2. TRAFFIC ALERT & COLLISION AVOIDANCE SYSTEM (TCAS) PH II	7,400	7,400	4,200
3. GLOBAL POSITIONING SYSTEM INSTALLATION - PHASE IV	3,600	3,600	1,800
4. COCKPIT VOICE/FLIGHT DATA RECORDERS - PHASE IV	1,500	1,500	1,500
5. HU-25B AIRCRAFT - AIREYE SYSTEM - PHASE II	6,400	4,900	-----
6. HH-65 HELICOPTER/HU-25 FIXED WING - SIMULATOR UPGRADE	1,300	1,300	1,300
7. VC-4A RENOVATION & AVIONICS UPGRADE	2,100	----	---
8. AUSTERE LOGISTICS AIRCRAFT PURCHASE	3,400	3,400	3,400
9. HH-65 - TRANSMISSION GEARBOX UPGRADE	5,400	5,400	4,500
10. RG-8 UPGRADE	2,800	----	----
SUBTOTAL-AIRCRAFT	163,900	82,700	71,900
III. OTHER EQUIPMENT:			
1. SYSTEMS TO AUTOMATE AND INTEGRATE LOGISTICS (SAIL)	8,000	8,000	6,600
2. DEFENSE LOGISTICS MODERNIZATION	4,900	4,900	3,900
3. COMPUTER SYSTEMS FOR SUPPLY CENTER	1,800	1,800	----
4. DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)	6,600	6,600	6,600
5. BUOY REPLENISHMENT PROJECT	4,000	4,000	1,000
6. DISTRIBUTED INFORMATION SYSTEM (DIS) - PHASE II	3,000	3,000	----
7. COMMUNICATION STATIONS AUTOMATION - PHASE III	3,200	3,200	2,000
8. GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM	1,000	----	----
9. COMMERCIAL SATELLITE COMMUNICATIONS-PH II	2,000	----	----
10. MARINE SAFETY NETWORK (MSN)	2,000	2,000	----
11. VESSEL IDENTIFICATION AND DOCUMENTATION SYSTEM (VIDS)	1,000	1,000	----
12. RESOURCE INFORMATION SYSTEM (KRIS) FOR HEALTH SERVICES PROGRAM	3,200	3,200	3,200
13. PERSONNEL MANAGEMENT INFORMATION SYSTEM/JOINT UNIFORM MILITARY PAY SYSTEM II	1,200	1,200	1,200

	OST REQUEST	OMB REQUEST	CONGRESSIONAL REQUEST
14. VESSEL TRAFFIC SERVICES 2000	30,000	27,600	27,600
15. CONVERSION OF APPLICATIONS SOFTWARE	15,000	15,000	2,000
16. OPERATIONS MANAGEMENT INFORMATION SYSTEM	2,300	----	----
17. VESSEL TRAFFIC SERVICE EQUIPMENT REPLACEMENT PROJECTS	3,000	3,000	3,000
18. VESSEL TRAFFIC SERVICE (VTS) UPGRADE AND EXPANSION PROJECT	----	----	4,400
19. MINOR AC&I AUTOMATED INFORMATION SYSTEM PROJECTS	2,600	2,600	1,900
20. MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT (MISLE)	----	----	5,300
SUBTOTAL-OTHER EQUIPMENT	94,800	87,100	68,700
IV. SHORE FACILITIES AND AIDS TO NAVIGATION:			
A. SHORE - GENERAL:			
1. SURVEY AND DESIGN - SHORE	18,000	14,000	13,000
2. MINOR AC&I SHORE PROJECTS	8,000	8,000	8,000
B. SHORE - AIR STATIONS:			
1. AIR STATION BORINQUEN, PR - RINSE RACK & FUEL FARM	6,300	6,300	6,300
2. AIR STATION MIAMI, FL - UPGRADE PH II	20,800	16,500	8,200
3. AIR STATION SITKA, AK - AIDS TO NAVIGATION SUPPORT BUILDING	3,000	3,000	3,000
C. SHORE - SUPPLY CENTERS/SUPPORT CENTERS/YARD:			
1. SUPPORT CENTER SAN PEDRO, CA - MEDICAL/DENTAL BUILDING	3,400	3,400	4,500
2. SUPPORT CENTER PORTSMOUTH, VA - EXPAND UNACCOMPANIED PERSONNEL HOUSING - PHASE II	3,600	3,600	----
3. COAST GUARD YARD CURTIS BAY, MD - SHIP HANDLING FACILITY-PHASE I	5,000	5,000	5,000

	OST REQUEST	OMB REQUEST	CONGRESSIONAL REQUEST
4. SUPPORT CENTER PORTSMOUTH, VA - EXPAND GROUP HAMPTON ROADS	5,500	----	----
5. SUPPORT CENTER KODIAK COMMUNITY CENTER	1,600	1,500	1,500
6. SUPPORT CENTER SEATTLE, WA - PIER 35 IMPROVEMENTS	3,200	----	----
7. SUPPORT CENTER KODIAK, AK - COLD STORAGE FACILITY	4,400	4,600	4,600
8. SUPPORT CENTER ALAMEDA, CA - SHORE EROSION PROJECT	1,100	1,000	----
9. SUPPORT CENTER SEATTLE, WA - RECONSTRUCT PIER 37	10,100	10,000	10,000
10. SUPPORT CENTER NEW YORK, NY - AIDS TO NAVIGATION AND ELECTRONIC TECHNICIAN SHOPS	3,200	3,200	----
11. SUPPORT CENTER ELIZABETH CITY, NC - REALIGN PERIMETER ROAD	----	----	2,800
D. SHORE - PERSONNEL SUPPORT FACILITIES:			
1. PUBLIC FAMILY QUARTERS	36,000	30,000	22,000
IV. SHORE FACILITIES AND AIDS TO NAVIGATION:			
E. SHORE - GROUPS/BASES/STATIONS/MSOS:			
1. GROUP NORTH BEND, OR - MEDICAL/DENTAL BUILDING	2,700	2,900	2,900
2. COMMUNICATIONS AREA MASTER STATION ATLANTIC - PORTSMOUTH, VA - TRANSMITTER BUILDING	4,400	4,400	4,400
3. GROUP PORT ANGELES, WA - MEDICAL/DENTAL BUILDING	3,400	3,300	3,300
4. GROUP CAPE MAY, NJ - GROUP SUPPORT BUILDING	8,300	----	----
5. STATION PROVINCETOWN, MA - WAVE BARRIER	1,100	1,100	1,300
6. NATCHEZ, MS - REPLACE MOORINGS	3,300	3,300	3,100
7. BASE HONOLULU, HI - REPLACE BOAT HOUSE	4,700	4,700	----
8. COMMUNICATIONS STATION MIAMI, FL - TRANSMITTER BUILDING	4,900	4,900	----
9. ATLANTIC STRIKE TEAM FACILITIES CONSTRUCTION, NJ	7,400	----	----

		OST REQUEST	OMB REQUEST	CONGRESSIONAL REQUEST
F.	TRAINING CENTERS:			
	1. TRAINING CENTER CAPE MAY, NJ - CHILD DEVELOPMENT CENTER	2,000	2,000	2,000
	2. TRAINING CENTER PETALUMA, CA - REPLACE WATER MAIN	2,800	2,800	----
	3. TRAINING CENTER CAPE MAY, NJ - MODIFY BARRACKS	3,100	3,100	3,900
	4. TRAINING CENTER CAPE MAY, NJ - RENOVATE ENLISTED UNACCOMPANIED PERSONNEL HOUSING	3,900	3,900	3,900
G.	AIDS TO NAVIGATION FACILITIES:			
	1. WATERWAYS SHORT RANGE AIDS PROJECTS	7,000	7,000	4,000
	2. OVERSEAS LORAN CLOSURES	6,000	6,000	1,500
	SUBTOTAL-SHORE FACILITIES AND AIDS TO NAVIGATION FACILITIES	198,200	159,500	119,200
V.	PERSONNEL AND RELATED SUPPORT:			
	1. PERSONNEL AND RELATED COSTS	49,000	46,300	39,000
	SUMMARY AC&I:			
I.	SUBTOTAL - VESSELS	189,900	130,400	115,200
II.	SUBTOTAL - AIRCRAFT	163,900	82,700	71,900
III.	SUBTOTAL - OTHER EQUIPMENT	94,800	87,100	68,700
IV.	SUBTOTAL - SHORE FACILITIES AND AIDS TO NAVIGATION	198,200	159,500	119,200
V.	SUBTOTAL - PERSONNEL AND RELATED SUPPORT	49,000	46,300	39,000
	TOTAL, FY 1994 AC&I REQUEST	695,800	506,000	414,000

FY 1994 FUNDING INCREMENT OST/OMB/CONGRESS STAGE

(521) SENATOR LAUTENBERG: Please provide for the record a display of your Operating Expenses requests as submitted to the Office of the Secretary of Transportation, the Office of Management and Budget, and the Congress, including each funding increment requested in each budget category. Please be sure to display the amount requested for each increment, as well as the number of military and civilian billets associated with each increment.

ADMIRAL KIME: The following table contains the funding history of the FY 1994 funding increment for OST/OMB/CONGRESSIONAL stage budget.

COAST GUARD
FY94 OPERATING EXPENSES BUDGET
OST/OMB/CONG CROSSWALK

CAT	TITLE	OST STAGE POSITIONS		($000) REQUEST	OMB STAGE POSITIONS		($000) REQUEST	CONG STAGE POSITIONS		($000) REQUEST
		MIL	CIV		MIL	CIV		MIL	CIV	
1.	PROGRAM REDUCTIONS									
	CIVIL SERVICE PERSONNEL REDUCTION	--	--	--	--	--	--	0	-142	-$7,368
	ADMINISTRATIVE EXPENSES REDUCTION	--	--	--	--	--	--	0	0	-5,512
	CLOSURE OF FAR EAST SECTION (FESEC) LORAN SITES	-105	0	-3,638	-105	0	-3,638	-105	0	-7,216
	COAST GUARD FAR EAST SECTION (FESEC) CLOSURE	-32	0	-891	-32	0	-891	-32	0	-1,799
	210-FOOT CUTTER MAJOR MAINTENANCE AVAILABILITY (MMA) OPERATIONS AND MAINTENANCE BASE REDUCTION	0	0	-1,180	0	0	-1,180	0	0	-1,338
	SEARCH AND RESCUE SATELLITE (SARSAT) FUNDING BASE TRANSFER	0	0	-378	0	0	-378	--	--	--
	TERMINATION OF ONE-TIME COSTS	0	0	-4,996	0	0	-4,996	0	0	-3,247
	ANNUALIZATION OF FY 1993 MANAGEMENT SAVINGS	0	0	-660	0	0	-660	--	--	--
	DECOMMISSION USCGC MACKINAW	--	--	--	-86	0	-4,800	-86	0	-1,162
	AUSTERE LOGISTICS AIRCRAFT EFFICIENCY	--	--	--	0	0	-550	0	0	-550
	LOCAL NOTICE TO MARINERS EFFICIENCY	--	--	0	0	-500	--	--	--	--

CAT	TITLE	OST STAGE POSITIONS MIL	OST STAGE POSITIONS CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	OMB STAGE POSITIONS CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CONG STAGE POSITIONS CIV	($000) REQUEST
	REDUCE ANTI-SUBMARINE WARFARE (ASW) MISSION CAPABILITIES	--	--	--	--	--	--	-158	0	-5,838
	ACCELERATE TRANSITION FROM HH-3F TO HH-60J HELICOPTERS	--	--	--	--	--	--	-106	0	-2,274
	TERMINATE AEW EC-130V DETECTION AND MONITORING OPERATIONS	--	--	--	--	--	--	-15	0	-716
	VESSEL IDENTIFICATION AND DOCUMENTATION SYSTEM (VIDS) BASE REDUCTION	--	--	--	--	--	--	-4	-2	-2,611
	TERMINATE PRESIDENTIAL SECURITY DETAIL IN KENNEBUNKPORT, ME	--	--	--	--	--	--	-58	0	-1,781
	COMMUNICATIONS SYSTEM MANAGEMENT EFFICIENCY	--	--	--	--	--	--	-28	0	-1,013
	SUBTOTAL, CATEGORY 1	-137	0	-$11,743	-223	0	-$17,593	-592	-144	$-42,425
2.	BUILT-IN CHANGES									
	EXTRAORDINARY HEALTH CARE COST INCREASE	0	0	$9,605	0	0	$9,605	0	0	$6,942
	REIMBURSEMENTS TO DOD FOR UTILIZATION OF DISPOSAL SERVICES	0	0	350	0	0	350	--	--	--
	DEFENSE DATA NETWORK (DDN)	0	0	675	0	0	675	0	0	675
	PERSONNEL COSTS FOR SALARIED CIVILIANS	0	0	2,150	--	--	--	--	--	--

CAT	TITLE	OST STAGE POSITIONS MIL	OST STAGE POSITIONS CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	OMB STAGE POSITIONS CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CONG STAGE POSITIONS CIV	($000) REQUEST
	FEDERAL EMPLOYEE COMPENSATION FUND INCREASE 1/	0	0	378	0	0	552	--	--	--
	COAST GUARD INTERFACE WITH DOD'S AUTOMATED TRANSPORTATION OPERATIONAL PERSONAL PROGRAM STANDARD SYSTEM (TOPS)	2	10	2,996	2	10	2,996	6	0	1,025
	MASS TRANSIT BENEFIT PROGRAM	0	5	5,685	0	5	2,172	0	4	1,882
	FUNDING FOR MANDATED REIMBURSABLE ACCOUNTS 1/	0	0	196	0	0	157	0	0	3,194
	FUNDING FOR PROPOSED PAY/ENTITLEMENTS INITIATIVE	0	0	25,146	--	--	--	--	--	--
	FY 1994 PAY RAISE	0	0	49,362	0	0	48,793	--	--	--
	AIR POST OFFICE (APO)/FLEET POST OFFICE (FPO) MAIL TRANSPORTATION COST ASSESSMENT	0	0	1,164	0	0	538	--	--	--
	ANNUALIZATION OF FY 1993 PAY RAISE	0	0	12,803	0	0	12,803	0	0	12,720
	ANNUALIZATION OF FY 1993 PART YEAR FUNDING	0	0	9,474	0	0	9,474	0	0	5,297
	NON-PAY COST OF LIVING ADJUSTMENT	0	0	35,563	0	0	35,563	0	0	30,300

1/ CONGRESSIONAL STAGE FEDERAL EMPLOYEE COMPENSATION FUND INCREASE LINE ITEM WAS MERGED WITH FUNDING FOR MANDATED REIMBURSABLE ACCOUNTS LINE ITEM.

CAT	TITLE	OST STAGE POSITIONS MIL	OST STAGE POSITIONS CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	OMB STAGE POSITIONS CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CONG STAGE POSITIONS CIV	($000) REQUEST
	RESTORE FY 1993 210-FOOT CUTTER MAJOR MAINTENANCE AVAILABILITY (MMA) BASE REDUCTION	0	0	1,180	0	0	1,180	0	0	1,180
	RESTORE FY 1991 OF HH-65A HELICOPTER OPERATIONS & MAINTENANCE BASE REDUCTION	0	0	6,295	0	0	6,295	0	0	5,900
	TERMINATE ICEBREAKER REIMBURSEMENT	0	0	4,589	0	0	4,589	--	--	--
	RESTORATION OF OCEAN DUMPING BASE	0	0	967	--	--	--	--	--	--
	A-76 PERSONNEL RESTORATION	0	137	2,600	0	137	0	--	--	--
	FTE STRUCTURAL DEFICIT CORRECTION	0	0	4,500	--	--	--	--	--	--
	RESTORE FY 1993 BASE REDUCTION 1/	--	--	--	0	0	10,311	0	0	5,311
	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) PAYROLL PROCESSING REIMBURSEMENT	--	--	--	--	--	--	1	0	0
	PERMANENT CHANGE OF STATION (PCS) ALLOWANCE INCREASES	--	--	--	--	--	--	0	0	1,714
	SUBTOTAL, CATEGORY 2	2	152	$175,678	2	152	$146,053	7	4	$76,140

1/ CONGRESSIONAL STAGE RESTORE FY 1993 BASE REDUCTION LINE ITEM WAS RENAMED NET BASE ADJUSTMENT FOR ONE-TIME SUPPLEMENTAL APPROPRIATIONS LINE ITEM.

CAT	TITLE	OST STAGE POSITIONS MIL	OST STAGE POSITIONS CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	OMB STAGE POSITIONS CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CONG STAGE POSITIONS CIV	($000) REQUEST
3.	OPERATE NEW FACILITIES									
	SHORE FACILITY CONSTRUCTION FOLLOW-ON	0	0	$3,982	0	0	$3,982	0	0	$2,329
	POLLUTION RESPONSE EQUIPMENT FOLLOW-ON	0	1	1,067	0	1	1,067	0	1	802
	VESSEL TRAFFIC SERVICE (VTS) FOLLOW-ON	40	48	4,910	40	45	3,790	5	5	1,618
	DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	34	0	2,636	34	0	2,636	31	0	1,850
	AIRBORNE EARLY WARNING (AEW) C-130 FOLLOW-ON	0	0	906	0	0	906	--	--	--
	HH-60J AIRCRAFT OPERATIONS AND MAINTENANCE FOLLOW-ON	0	0	516	0	0	516	--	--	--
	FORWARD LOOKING RADAR (FLAR) FOLLOW-ON	0	0	263	0	0	263	0	0	147
	INTERAGENCY LAW ENFORCEMENT COMMUNICATION EQUIPMENT FOLLOW-ON	0	0	1,723	0	0	1,723	--	--	--
	COMMERICAL SATELLITE COMMUNICATIONS ON COAST GUARD CUTTERS	0	0	300	0	0	300	0	0	300
	INFORMATION RESOURCES MANAGEMENT (IRM) FOLLOW-ON	8	17	5,111	0	0	3,998	0	0	3,550
	ATLANTIC STRIKE TEAM FACILITY LEASE	--	--	--	0	0	850	--	--	--
	SUBTOTAL, CATEGORY 3	82	66	$21,414	74	46	$20,031	36	6	$10,596

CAT	TITLE	OST STAGE POSITIONS MIL	CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CIV	($000) REQUEST
4.	IMPROVE MISSION EFFECTIVENESS									
	WORK-LIFE INITIATIVES	123	22	19,241	27	22	11,000	8	22	3,096
	LICENSING OPERATORS OF FEDERALLY DOCUMENTED UNINSPECTED FISHING VESSELS	0	3	233	0	3	233	0	3	187
	PASSENGER VESSEL SAFETY PROGRAM	5	6	753	5	6	753	5	6	646
	SPILL RESPONSE EXERCISE SUPPORT STANDARDIZATION TEAM	19	6	3,239	19	6	3,239	19	6	969
	NATIONAL RESPONSE CENTER (NRC) SUPPORT RESOURCES	7	0	681	7	0	681	7	0	164
	IMPROVE LIVING MARINE RESOURCE ENFORCEMENT 1/	71	0	2,867	36	0	1,433	64	0	2,374
	SAFETY AND ENVIRONMENTAL HEALTH (S&EH) SUPPORT	13	0	899	13	0	899	--	--	--
	VESSEL SAFETY PROGRAM SUPPORT REQUIREMENTS	18	0	3,734	9	0	2,500	--	--	--
	SUPPORT CENTER SAN PEDRO MEDICAL PERSONNEL	9	0	281	9	0	281	--	--	--
	SHORE FACILITY AND REAL PROPERTY SUPPORT	1	23	11,402	--	--	--	--	--	--

1/ CONGRESSIONAL STAGE LIVING MARINE RESOURCE STAFF REQUIREMENTS AND LIVING MARINE RESOURCE TRAINING REQUIREMENTS PHASE I WAS MERGED INTO IMPROVE LIVING MARINE RESOURCE ENFORCEMENT LINE ITEM.

		OST STAGE POSITIONS			OMB STAGE POSITIONS			CONG STAGE POSITIONS		
CAT	TITLE	MIL	CIV	($000) REQUEST	MIL	CIV	($000) REQUEST	MIL	CIV	($000) REQUEST
	PASSENGER VESSEL SECURITY SPECIALISTS FOR FOREIGN PORTS	9	0	523	9	0	523	--	--	--
	ENFORCEMENT OF ANNEX V SPECIAL AREA FOR THE CARIBBEAN REGION	0	0	517	0	0	517	--	--	--
	INTERNATIONAL MARITIME ORGANIZATION (IMO) COOPERATIVE INVESTIGATION PROGRAM	3	2	463	2	1	315	--	--	--
	CONTAINER INSPECTION PROGRAM	76	0	2,195	38	0	1,100	--	--	--
	MARINE INSPECTION PROGRAM RESOURCES	33	0	1,457	33	0	1,457	--	--	--
	SMALL BOAT STANDARDIZATION TEAM	14	0	625	14	0	625	--	--	--
	BRIDGE ADMINISTRATION PERMIT-STAFF SUPPORT	0	7	376	0	4	200	--	--	--
	COCKPIT SAFETY MANAGEMENT TRAINING	2	0	378	2	0	378	--	--	--
	FOREIGN LINGUIST PROFICIENCY PAY & TRAINING	0	0	342	--	--	--	--	--	--
	SECURITY PROGRAM SUPPORT RESOURCES	15	3	907	--	--	--	--	--	--
	COAST GUARD OWNED HOUSING MANAGEMENT, OPERATION AND MAINTENANCE PROGRAM	55	1	8,530	55	1	4,510	--	--	--
	LEASED HOUSING	38	0	10,167	38	0	6,990	--	--	--

CAT	TITLE	OST STAGE POSITIONS		($000) REQUEST	OMB STAGE POSITIONS		($000) REQUEST	CONG STAGE POSITIONS		($000) REQUEST
		MIL	CIV		MIL	CIV		MIL	CIV	
	TELECOMMUNICATION SUPPORT RESOURCES	26	0	634	26	0	634	--	--	--
	DEEPWATER PORT CERTIFICATE OF FINANCIAL RESPONSIBILITY (COFR) FUNCTION	0	2	117	--	--	--	--	--	--
	POLLUTION FUND TRAINING FOR FIELD PERSONNEL	0	0	321	0	0	321	--	--	--
	CONTINGENCY PREPAREDNESS STRATEGIC INFORMATION RESOURCE MANAGEMENT (IRM)	0	0	667	--	--	--	--	--	--
	SHORE FACILITY MAINTENANCE	--	--	--	0	0	2,500	--	--	--
	HUMAN RESOURCE INITIATIVES	11	9	1,689	--	--	--	--	--	--
	TRAINING WORKFORCE 2000	13	14	4,497	15	7	1,200	--	--	--
	CIVILIAN EMPLOYMENT SUPPORT ISSUES	0	13	947	--	--	--	--	--	--
	AERONAUTICAL ENGINEERING PRODUCT LINE SUPPORT	5	5	$649	--	--	--	--	--	--
	PROPERTY MANAGEMENT RESOURCES	0	17	1,041	0	17	794	--	--	--
	IMPROVE INFORMATION RESOURCES MANAGEMENT (IRM) PLANNING	3	11	1,043	3	11	1,043	--	--	--
	IMPROVE FINANCIAL MANAGEMENT EFFECTIVENESS	8	15	1,176	8	12	900	--	--	--

CAT	TITLE	OST STAGE POSITIONS MIL	OST STAGE POSITIONS CIV	($000) REQUEST	OMB STAGE POSITIONS MIL	OMB STAGE POSITIONS CIV	($000) REQUEST	CONG STAGE POSITIONS MIL	CONG STAGE POSITIONS CIV	($000) REQUEST
	DEPARTMENT OF TRANSPORTATION BONDING ASSISTANCE PROGRAM	0	0	2,000	--	--	--	--	--	--
	SUBTOTAL, CATEGORY 4	577	159	$84,591	368	90	$45,026	103	37	$7,436
	GRAND TOTAL, CATEGORIES 1-4	524	377	$269,940	221	288	$193,517	-446	-97	$51,747

ADJUSTMENTS TO FY 1993 OPSTAGE FINANCIAL PLAN

(522) SENATOR LAUTENBERG: For each of the funding increments requested over the base for Operating Expenses in your 1994 budget justification, please identify those for which funding will be provided in part or in whole within FY 1993. Please identify the amount the Coast Guard intends to make available in FY 1993 for the initiative requested in FY 1994.

ADMIRAL KIME: The following initiatives, which are included in the FY 1994 request, are receiving partial or full funding in FY 1993:

Item 3.a Shore Facility construction Follow-on: The following projects, which are contained in the FY 1994 budget will require follow-on funding prior to FY1994:

Project	Projected FY 1993 Funding
- Group Fort Macon Stabilize Boat Basin Atlantic Beach, NC	$ 4,000
- LORAN StATION Renovation Phase I Attu, AK	$100,000
- Replace Fire Station, Air Station Kodiak Kodiak, AK	$ 87,000
- Station Portsmouth Harbor Floating Dock New Castle, NH	$ 12,000
- Station Communications Center Upgrade Monterey, CA	$ 3,000
- Group Communications Center Upgrade Astoria, OR	$ 2,000
- Group Communications Center Upgrade Port Angeles, WA	$ 2,000
- Fire Protection System Honolulu, HI	$ 1,000
- Patrol Boat Support Facility Honolulu, HI	$ 13,000

(523) SENATOR LAUTENBERG: Please provide a complete funding breakdown of expenditures for vessel, aircraft, and shore facility maintenance operating guides from FY 1990 through FY 1994. Please list only the AFC 4X totals by years.

ADMIRAL KIME: In prior years the Coast Guard provided cost information for the 4X accounts based on expenditure data. An improvement in the Coast Guard's ability to retrieve data from the accounting system now makes it possible to provide costs for the 4X accounts based on obligation data, which are the true costs incurred for a fiscal year. These data are available beginning from Fiscal Year 1991 through the last full year (in this case FY 1992). Therefore, the Coast Guard will provide obligation data vice expenditure data in the future. To provide a basis of comparison to last year's response, and to facilitate the transition to obligation data reporting for the next year, both expenditure and obligation information are provided. The following tables summarize data in facility maintenance Allotment Fund Codes for aircraft (AFC-41), shore facilities (AFC-43), and vessels (AFC-45). A complete breakdown of the three most general object classes has been provided for FY 1992; that breakdown is representative of other years as well. The figures for FY 1993 and FY 1994 are estimates based on FY 1992 levels, adjusted for cost-of-living increases.

SUMMARY TABLES

FY 1990-1993 AFC-4X EXPENDITURES
(thousands of dollars)

Fiscal Year	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45

1990	142,890	68,287	79,763
1991	136,799	89,772	107,735
1992	134,685	73,831	67,524
1993[1]	151,330	81,867	69,752
1994[1]	155,416	84,077	71,635

[1] Estimate based on the FY 1992 levels plus cost-of-living increase and other expected adjustment.

FY 1992-1994 AFC-4X OBLIGATIONS
(thousands of dollars)

Fiscal Year	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
1992	123,193	96,570	99,781
1993[1]	142,555	98,812	104,156
1994[1]	146,404	101,480	106,968

[1] Estimate based on the FY 1992 levels plus cost-of-living increase and other expected adjustment.

DETAIL TABLES

FY 1990 FACILITY MAINTENANCE EXPENDITURES
(Actual)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	16,256		
12 Personnel Benefits	2,305		
21 Travel & Transportation of Persons	682	184	215
22 Transportation of Things	1,536	109	877
23 Rent, Communications, & Utilities	35		
24 Printing & Reproduction	6		
25 Other Services	66,334	52,588	54,662
26 Supplies & Materials	53,725	13,521	14,453
31 Equipment	2,011	1,728	9,556
32 Land & Structures		157	.
Total	142,890	68,287	79,763

FY 1991 FACILITY MAINTENANCE EXPENDITURES
(Actual)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	17,089		
12 Personnel Benefits	2,676		19
21 Travel & Transportation of Persons	616	594	341
22 Transportation of Things	1,216	48	930
23 Rent, Communications, & Utilities	100	2	
24 Printing & Reproduction	1		
25 Other Services	76,692	72,186	64,930
26 Supplies & Materials	37,930	13,472	29,663
31 Equipment	479	3,296	11,852
32 Land & Structures		174	.
Total	136,799	89,772	107,735

FY 1992 FACILITY MAINTENANCE EXPENDITURES
(Actual)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	18,813	92	
12 Personnel Benefits	2,652		
21 Travel & Transportation of Persons	1,658	1,125	340
22 Transportation of Things	1,304	77	959
23 Rent, Communications, & Utilities	259	5	
24 Printing & Reproduction	1		
25 Other Services	83,646	59,784	51,127
2500 Other Services		2	
2501 ADP Services	384		
2507 Cutter Ordnance			380
2510 Recurring Reimb Svc	141		
2511 GSA N-R Reimb Svc	357		
2512 Aircraft Engines	6,950		
2513 Restor A/C Crash Damage	24		
2514 Ovhaul/Repair of Acft	2,147		
2518 Accessories & Equip	1,673		
2519 Service - MSA Equip			5
2525 Cutter M&R		2	62
2529 Special Studies	40		
2530 Other Svcs	43,004	316	23
2531 Gunnery Awards		169	
2532 Non-Rec Shore		10,451	
2533 Rebuild Shore Fac		38,616	
2535 Environ Comp Pgm		770	
2537 Shore Pgm-Other		3,005	
2540 Contract Svc - OGA	113	4	
2541 Routine Acft M&R	28,796		
2542 Repair/Maint - Elect Eq	5		
2544 Shore Maint & Repair	2	4,850	4
2545 Small Boat M&R			17
2548 Contract Svc - Commercial		44	
2550 Cutter Casualty Damage			3,348
2551 Survival Equip M&R			5
2552 Cutter Drydock			26,167
2553 Cutter Shipalt			2,856
2554 Services - Ordance			7
2555 Services - Recreation			172
2559 Other Misc Svcs		36	102
2561 Cutter M&R			9,784
2563 Ship Services			8
2565 ATON Facilities		1,048	671
2569 Vessel-Other			7,458
2571 ATON-Lg Buoys		42	
2572 MER Equip		167	
2573 CHAMP-outpat		195	
2576 ATON-Routine M&R		2	
2597 Lost Discounts		5	12
2598 Lost Discounts - Comparison		1	4
2599 Interest Penalties	10	59	42
26 Supplies & Materials	25,736	9,643	13,540
2600 Supplies & Materials		1	1
2609 A/C Fuel - VC-11A	23		
2611 Acft Fuel	18,886		
2614 Field Stock Issues	1		
2615 ADP Supplies/Matls	1,334		
2619 Redis Expense			
2625 Cutter M&R			758
2631 Trng Support		1	
2632 Major N-R Maint		1,869	

2633 Rebuild Shore Fac		4,144	
2634 Housekeeping		121	73
2641 Acft Parts: Repair	5,268		
2642 Elec Spare Parts		18	
2644 Shore Unit S&M		712	
2645 Small Boat S&M		2	16
2650 Cutter Casualty Dmg			2,693
2651 Inventory Adj	6		5
2652 Cutter Drydock			4,113
2653 Cutter Shipalt			1,381
2655 Sup/Mat - Maint - Recreation		6	
2656 Sup/Mat - Maint - Training			3
2659 Supplies & Materials		62	98
2660 Accessorial Chgs			
2661 Cutter S&M			3,149
2662 Fuel	215		
2666 Small Boat Casualty Dmg			239
2668 Shore Unit Energy			1
2669 Ordnance Repair Parts			9
2671 ATON S&M		2,492	
2672 MER Equip		20	11
2673 ATON - Moorings		17	
2675 ATON Batteries		12	1
2676 ATON-Other		109	
2680 Acft Parts: Inventory			
2685 Environ Pgm		33	
2693 Navy Ordnance			952
2697 Lost Discounts	1	4	6
2699 Interest Penalties	2	20	31
31 Equipment	616	2,533	1,558
3100 Equipment		8	
3142 Equipment-Other			
3144 Equipment-Electronic	101		
3158 Equipment - Cap - Vessels		25	
3161 MS Equip			
3163 Equipment-Ground Supprt	1	1,030	989
3164 Boats, etc.			
3165 Environ Pgm		38	
3166 Vehicles		684	
3167 Equipment Cap - Electronic		60	
3168 Equipment Cap - Aton Buoys		34	
3169 Equipment Cap - Fixed ATON		11	
3171 Equipment Cap - ADP			4
3173 Survival			
3175 Equipment		1	
3178 Equipment	508		
3181 Genl Purpose Property	6	636	564
3197 Lost Discounts		1	
3199 Interest Penalties		5	1
32 Land & Structures		572	
Total	134,685	73,831	67,524

FY 1993 FACILITY MAINTENANCE EXPENDITURES
(Estimated)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	21,137	103	
12 Personnel Benefits	2,980		
21 Travel & Transportation of Persons	1,863	1,247	351
22 Transportation of Things	1,465	86	991
23 Rent, Communications, & Utilities	293	5	
24 Printing & Reproduction	1		
25 Other Services	93,983	66,291	52,814
26 Supplies & Materials	28,916	10,691	13,987
31 Equipment	692	2,808	1,609
32 Land & Structures		635	.
Total	151,330	81,867	69,752

FY 1994 FACILITY MAINTENANCE EXPENDITURES
(Estimated)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	21,708	106	
12 Personnel Benefits	3,061		
21 Travel & Transportation of Persons	1,914	1,281	360
22 Transportation of Things	1,505	88	1,018
23 Rent, Communications, & Utilities	300	6	
24 Printing & Reproduction	1		
25 Other Services	96,520	68,080	54,240
26 Supplies & Materials	29,697	10,980	14,365
31 Equipment	710	2,884	1,652
32 Land & Structures		653	.
Total	155,416	84,077	71,635

FY 1992 FACILITY MAINTENANCE OBLIGATIONS
(Actual)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	18,663	92	
12 Personnel Benefits	2,633		
21 Travel & Transportation of Persons	653	280	283
22 Transportation of Things	1,296	74	945
23 Rent, Communications, & Utilities	66		
24 Printing & Reproduction	1		
25 Other Services	71,370	82,352	78,776
2500 Other Services			
2501 ADP Services	381		
2507 Cutter Ordnance			94
2510 Recurring Reimb Svc	140		
2511 GSA N-R Reimb Svc	5		
2512 Aircraft Engines	6,907		
2513 Restor A/C Crash Damage	24		
2514 Ovhaul/Repair of Acft	16,783		
2518 Accessories & Equip			
2519 Service - MSA Equip			5
2525 Cutter M&R		2	85
2529 Special Studies	39		
2530 Other Svcs	27,839	1	23
2531 Gunnery Awards		175	
2532 Non-Rec Shore		12,102	
2533 Rebuild Shore Fac		50,190	
2535 Environ Comp Pgm		1,097	
2537 Shore Pgm-Other		3,790	
2540 Contract Svc - OGA	112	239	
2541 Routine Acft M&R	20,122		
2542 Repair/Maint - Elect Eq	6	83	
2544 Shore Maint & Repair	3	12,602	5
2545 Small Boat M&R		1	19
2548 Contract Svc - Commerical		81	
2550 Cutter Casualty Damage			2,945
2551 Survival Equip M&R			5
2552 Cutter Drydock			31,188
2553 Cutter Shipalt			4,330
2554 Services - Ordance			11
2555 Services - Recreation		19	
2559 Other Misc Svcs		365	129
2561 Cutter M&R			13,215
2563 Ship Services			8
2565 ATON Facilities		928	
2566 Cas Damage - Sm Boats			765
2567 Damage - Aux Facility			20
2569 Vessel-Other			25,860
2571 ATON-Lg Buoys		14	
2572 MER Equip		229	
2573 CHAMP-outpat		26	
2576 ATON-Routine M&R		350	
2597 Lost Discounts		6	24
2598 Lost Discounts - Comparison			4
2599 Interest Penalties	9	52	41

26 Supplies & Materials	28,898	9,149	18,732
2600 Supplies & Materials			1
2609 A/C Fuel - VC-11A			
2611 Acft Fuel	18,624		
2614 Field Stock Issues	1		
2615 ADP Supplies/Matls	1,294		
2619 Redis Expense			
2625 Cutter M&R			832
2631 Trng Support			
2632 Major N-R Maint		1,502	
2633 Rebuild Shore Fac		2,948	
2634 Housekeeping		150	39
2641 Acft Parts: Repair	7,760		
2642 Elec Spare Parts		22	
2644 Shore Unit S&M		1,942	1
2645 Small Boat S&M		2	53
2650 Cutter Casualty Dmg			3,086
2651 Inventory Adj	4		11
2652 Cutter Drydock			3,775
2653 Cutter Shipalt			2,135
2655 Sup/Mat - Maint - Recreation		13	
2656 Sup/Mat - Maint - Training			6
2659 Supplies & Materials		283	26
2660 Accessorial Chgs			
2661 Cutter S&M			7,191
2662 Fuel	214		
2666 Small Boat Casualty Dmg			529
2668 Shore Unit Energy			
2669 Ordnance Repair Parts			13
2671 ATON S&M		1,977	
2672 MER Equip		20	1
2673 ATON - Moorings			
2675 ATON Batteries		15	
2676 ATON-Other		232	1
2680 Acft Parts: Inventory			
2685 Environ Pgm		30	
2693 Navy Ordnance			1,007
2697 Lost Discounts		4	6
2699 Interest Penalties	1	9	19
31 Equipment	613	4,024	1,045
3100 Equipment		42	
3142 Equipment-Other			
3144 Equipment-Electronic	100		
3158 Equipment - Cap - Vessels		31	
3161 MS Equip			
3163 Equipment-Ground Supprt		1,491	185
3164 Boats, etc.			
3165 Environ Pgm		39	
3166 Vehicles		1,914	
3167 Equipment Cap - Electronic		120	
3168 Equipment Cap - Aton Buoys		34	
3169 Equipment Cap - Fixed ATON		17	
3171 Equipment Cap - ADP			4
3173 Survival			
3175 Equipment		1	
3178 Equipment	505		
3181 Genl Purpose Property	8	330	855
3197 Lost Discounts		1	
3199 Interest Penalties		4	1
32 Land & Structures		599	
Total	123,193	96,570	99,781

FY 1993 FACILITY MAINTENANCE OBLIGATIONS
(Estimated)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	21,596	94	
12 Personnel Benefits	3,047		
21 Travel & Transportation of Persons	756	287	295
22 Transportation of Things	1,500	76	986
23 Rent, Communications, & Utilities	76		
24 Printing & Reproduction	1		
25 Other Services	82,587	84,264	82,830
26 Supplies & Materials	32,283	9,361	19,553
31 Equipment	709	4,117	1,091
32 Land & Structures		613	
Total	142,555	98,812	104,156

FY 1994 FACILITY MAINTENANCE OBLIGATIONS
(Estimated)
(thousands of dollars)

Object Class	Aircraft AFC-41	Shore AFC-43	Vessels AFC-45
11 Personnel Compensation	22,179	97	
12 Personnel Benefits	3,129		
21 Travel & Transportation of Persons	776	294	303
22 Transportation of Things	1,540	78	1,013
23 Rent, Communications, & Utilities	79		
24 Printing & Reproduction			
25 Other Services	84,817	86,539	84,450
26 Supplies & Materials	33,155	9,614	20,081
31 Equipment	729	4,229	1,120
32 Land & Structures		629	
Total	146,404	101,480	106,968

FMP FUNDING

(524) SENATOR LAUTENBERG: Please provide a table of total Fleet Modernization Program (FMP) funds provided for Coast Guard assets for the last seven fiscal years and the anticipated level for FY 1994. Might Coast Guard funds be used to finance any expenditures normally financed through FMP funds in 1993 or 1994? If so, when and why? Please identify any instances in FY 1993 and FY 1994 in which the Navy and the Coast Guard are likely to deviate from OPNAVINST 4000.79A.

ADMIRAL KIME: Fleet Modernization Program (FMP) funding levels provided to the Coast Guard to install Navy-Type-Navy-Owned (NTNO) equipment are as follows:

FISCAL YEAR	AMOUNT (MILLIONS)
1987	3.0[1]
1988	3.0[1]
1989	2.0[1]
1990	2.1[1]
1991	11.5[2]
1992	10.8[2]
1993	9.8[2]
1994	2.5[3]

1 Provided to Fleet Renovation and Modernization (FRAM) program for combat system installations.
2 Does not include funding held by NAVSEA for design services engineering (approximately $.5M - $.7M per year).
3 Projected amount

In 1993 and 1994 the Coast Guard does not plan to fund any expenditures that would normally be financed using FMP funds nor are there any instances where the Coast Guard and Navy anticipate deviating from the provisions of OPNAVINST 4000.79A.

O&M FUNDING RESTORATION

(525) SENATOR LAUTENBERG: Please provide specific FY 1994 schedule information and related O&M funding restoration requirements for each Coast Guard WHEC and WMEC completing shipyard availabilities.

ADMIRAL KIME: The following table provides FY 1994 schedule information for WMECs undergoing Major Maintenance Availability (MMA). The WHEC major availability (FRAM) was completed in March 1992.

CUTTER	ENTERS MMA	DEPARTS MMA	# QUARTERS IN MMA
CGC VENTUROUS	1 Jan 94		3
CGC STEADFAST		1 Jan 94	1
CGC RESOLUTE	1 Aug 94		1
CGC ALERT		1 Aug 94	3
CGC DAUNTLESS			4

To follow the previously established accounting convention, the O&M funding restoration in FY94 (+$1,180,000) restores all funding associated with the 210 MMA which was reduced from the base in FY93 (-$1,143,000) adjusted for inflation.

The related FY94 reduction (-$1,338,000) is based on the number of quarters the 210 MMA cutter is out of operation (Twelve quarters at $115,700 per quarter; $50,000 is retained for commissioning and decommissioning costs).

COST CONTAINMENT AND QUALITY ASSURANCE INITIATIVES

(526) SENATOR LAUTENBERG: Please describe the Coast Guard's health care cost containment and quality assurance initiatives now being implemented, and the expected cost savings that can be expected from each. Please provide an update on the status of cost containment and quality assurance initiatives described in last year's hearing record.

ADMIRAL KIME: The Coast Guard has initiated several cost avoidance programs to control the rate of health care cost growth. Cost avoidances from these programs are included in computing the FY94 request for extraordinary health care COLA. Implementation of the Active Duty Claims Program, which ensures that invoices for inpatient health care are reviewed to prevent payments from exceeding federally established rates, resulted in a cost avoidance of over $300,000 during FY91. There was a cost avoidance of $1,100,000 during FY92 and the recurring cost avoidance for FY93 and beyond is projected to be $1,500,000. The Improved Federal Medical Care Recovery Program, which seeks reimbursement from third party insurers, provides an estimated annual cost avoidance of $1,000,000. Due to the increased CHAMPUS deductible, the Coast Guard realized a cost avoidance of $3,800,000 during FY92.

Coast Guard pharmacies, through initiatives started in 1989 to improve procurement and inventory management, saved $200,000 annually. This also has reduced waste due to expiration of shelf-life. This savings has been used to implement nonprescription drug programs and to provide more pharmaceuticals in house to Coast Guard health care services beneficiaries, thereby reducing CHAMPUS and contract pharmacy costs. Additional cost saving efforts are directed toward minimizing product duplication via the Coast Guard Core

Formulary. Implementation of DoD prime vendor procurement initiatives will allow a reduction of inventories with no loss of product availability to health care services beneficiaries.

Quality Assurance site survey, monitoring and evaluation programs are now fully functional; each Coast Guard clinic has been surveyed and certified by Coast Guard health services and safety quality teams. A credentials maintenance program, which ensures that Coast Guard providers are appropriately trained for the treatment they render, is now fully operational. The Coast Guard clinical privileging program requires specific approval/qualification for physicians, nurse practitioners, physician's assistants, and dentists to perform various procedures which fall outside of a basic core of standard procedures. A comprehensive risk management program is under development which will assess risk in treatment procedures based on frequencies of treatment, insuring that proper precautions are taken and optimum procedures used for the treatment of patients. The Coast Guard also employs a record review program which evaluates patient records of all patients seen in Coast Guard clinics. As the FY94 budget request and projected budget requests indicate, health care costs continue to rise faster than COLA. Cost avoidance mitigates, but does not offset, extraordinary health care costs.

COAST GUARD PAYMENTS TO CHAMPUS AND DOD

(527) SENATOR LAUTENBERG: Please update the table on page 192 of last year's hearing record indicating payments to CHAMPUS and DoD.

ADMIRAL KIME: The following tables show the Coast Guard's annual payments to CHAMPUS and to Department of Defense (DoD) for the last five fiscal years. FY92 DoD payments are projected. The Coast Guard has not yet received all FY92 DoD requests for reimbursement.

OPERATING EXPENSES APPROPRIATION ANNUAL PAYMENTS
($ millions)

	CHAMPUS	DoD
FY92	50.7	11.1 projected
FY91	48.1	10.8
FY90	42.7	15.0
FY89	41.4	11.6
FY88	38.6	11.5

RETIRED PAY APPROPRIATION ANNUAL PAYMENTS
($ millions)

	CHAMPUS	DoD
FY92	24.8	4.0 projected
FY91	26.0	4.6
FY90	20.8	6.2
FY89	20.5	5.1
FY88	17.8	4.6

(528) SENATOR LAUTENBERG: Did DoD's "Managed-Care System" impact the FY 1994 budget? If so, how? If not, when is it anticipated that benefits will be realized and how significant will they be?

ADMIRAL KIME: DoD's Managed Care System will help reduce the growth in health care costs, while expanding access to quality care. However, this plan is still in the demonstration phase and nationwide implementation would stretch into the next decade. Additionally, this system is focused exclusively on health care inside of the catchment areas. Because almost half of Coast Guard health care services beneficiaries will continue to reside outside of the catchment areas of most DoD health care facilities, potential savings from DoD's Managed-Care System will be limited. Appreciable savings are not expected from this initiative in FY 94, and it would be several years before any savings at all will be realized. Future potential savings cannot even be estimated as the draft Managed-Care plan has not been finalized.

(529) SENATOR LAUTENBERG: What are the results of the four medical care pilot programs evaluated through September 30, 1992? Based on these results, will the Coast Guard expand its health care contracting program?

ADMIRAL KIME: The initial assessments of the pilot programs at Crescent City, CA; Brookings, OR; Homer, AK; Eureka, CA; and Juneau, AK appear favorable. An average health care cost of $66.00 per outpatient visit was realized, whereas Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) use would have cost approximately $90.00 for similar services. Customer and provider satisfaction is high. Based on this initial assessment, these pilot programs have been extended another year, with follow-up assessment scheduled October 1993. This will allow for a more in-depth analysis of beneficiary utilization and cost avoidance. We have indications that these programs, with their simplified paperwork and low cost share, result in higher utilization rates than when CHAMPUS alone is available.

Any further expansion pends the outcome of the President's Task Force on National Health Care, the effects of the final Defense Base Realignment and Closure Commission study, and the final analysis of existing pilot programs.

(530) SENATOR LAUTENBERG: In regard to your request for a resource information system for a health services program, why are you not utilizing a health care cost system that is already implemented in DOD?

ADMIRAL KIME: The Coast Guard uses DoD systems and databases at every possible opportunity. Examples are participation in the Active Duty Claims Program for civilian inpatient care and in the many CHAMPUS initiatives. The Coast Guard has recently subscribed to several large DoD database services to help define beneficiary demographics.

The Coast Guard cannot always fit its problems into DoD solutions. Because DoD beneficiaries tend to be clustered around military bases with hospital facilities, DoD cost-management systems concentrate on high-cost inpatient health care in catchment areas. Coast Guard beneficiaries are more widely dispersed and are often in remote areas. About half the population lives outside DoD catchment areas. As a result, Coast Guard beneficiaries are more likely to receive health care from a CHAMPUS provider at a higher cost per visit compared to DoD health care sources.

The thrust of the Coast Guard Resource Information System is to examine health care alternatives for its beneficiaries, with emphasis on outpatient cost management. To do this, the Coast Guard will depend heavily on work already done by DoD, especially in the conversion of CHAMPUS accounting data into useful management databases. The Coast Guard will continue to borrow from DoD where their systems fit into the Coast Guard environment.

(531) SENATOR LAUTENBERG: What assessments were done on using off-the-shelf, state of the market health care databases? Why must you develop your own system for the Coast Guard use?

ADMIRAL KIME: Many databases are available; however, there is no off-the-shelf system which can provide a composite view of the multiple sources of health care the Coast Guard uses for its widely dispersed beneficiary population. A composite view is necessary to analyze alternatives and coordinate health care delivery in the most cost-effective way.

The Coast Guard has identified several off-the-shelf databases which can be consolidated with DOD data and Coast Guard data to form a single, connsolidated system of compatible and comparable information. The Resource Information System will provide health care analysts with the tools to enable manipulation of this mixture of information on federal and non-federal providers, the various costs for health care services, and the internal workloads.

This composite data will allow health care coordinators to direct beneficiaries to the most cost-effective providers, improve their negotiating position to enable more advantageous contracts, distribute resources more efficiently, and reduce fraud, waste, and abuse. The system will allow the Coast Guard to maximize the utilization of all health care resources: funds, facilities, and personnel.

In the private sector, no off-the-shelf system exists which aids in analyzing federal procurement of health care from multiple sources for such a widely dispersed beneficiary population. Clinic systems are mostly based on simple accounts-payable software. Insurance industry systems, which are not available for purchase or lease, concentrate only on private-sector providers and cannot take advantage of the collection of data we now have on demographics and the federal health care network. The Coast Guard must aggressively market cost-effective health care to its beneficiary populations, and requires accurate, timely, and useful information from a variety of sources to develop and carry out cost-control strategies. The Resource Information System will collect, consolidate, and present the information necessary to accomplish this.

(532) SENATOR LAUTENBERG: How will your program differ from programs ongoing either in DoD or in the private sector, that requires you to develop your own system? Please provide written copies of your alternatives analysis for this project.

ADMIRAL KIME: Coast Guard health care delivery differs somewhat from that of DoD and the private sector. Private insurers spend large sums of money on information management, and they serve large populations. Systems investigated so far in the private sector run on expensive mainframe computers and also suffer from a technology lag. The Coast Guard system will be flexible and responsive to changes in the health care delivery environment.

About half the Coast Guard health care beneficiary population live within DoD catchment areas, whereas nearly 80% of DoD beneficiaries are within their catchment areas. DoD cost-management systems concentrate on high-cost inpatient health care in well-defined and densely populated DOD catchment areas. The Coast Guard Resource Information System will target the Coast Guard health care beneficiary population outside the DoD catchment areas. High-cost areas must be clearly defined, both geographically and in the nature of demands placed on the Coast Guard health care delivery system. The system will also process safety and wellness data, measuring the cost of accidents and illnesses resulting from unhealthy lifestyles. The private sector has measured some modest advances in reducing health care costs by preventing injury and illness. A proactive effort in this regard translates into future savings.

An analysis of needs, priorities and alternatives follows:

Synopsis of Alternatives Analyses

Clinic Automated Management System (CLAMS) for USCG Health Care Facilities

Commercial Off-the-Shelf: Clinic management packages support accounts receivable and patient record tracking and do not satisfy "tickler" or readiness requirements.

Government Off-the-Shelf: DoD systems support inpatient and hospital clinic operations only. VA systems written in proprietary 4th-generation language but can serve as a functional/design model for CG software. Navy shipboard tickler system written in obscure language but can also serve as a model for tickler and readiness functions. Navy logistics and telecommunications system will be incorporated into CG system.

Coast Guard-owned: CLAMS system, built in 1991 by CG, meets approximately 70 percent of requirements; needs conversion to "open systems" architecture and integration into G-K Resource Information System.

Nonfederal Invoice Processing System (NIPS).

Commercial Off-the-Shelf: McDonnell Douglas, USAA, American Family Life and ICMRS systems studied for possible contracting of fiscal intermediary role. Where commercial interest existed, estimated cost exceeded anticipated gain.

Government Off-the-Shelf: A low reliance was found on nonfederal health care by DoD services and other federal agencies. Navy regional system failed to provide automated checks for duplicate payments or overcharges.

Coast Guard-owned: CG is highly reliant on nonfederal health care. The NIPS system, developed in 1987, requires mid-lifecycle improvements to match streamlined business model and workflow, to integrate into KRIS, and to meet new security requirements.

G-K Resource Information System (KRIS).

Commercial Off-the-Shelf: Unable to identify any system which aids in analyzing health care delivery and expenditure prevention in a Coast Guard or other federal environment.

Government Off-the-Shelf: Only stovepipe systems are available. DoD systems aid hospital commanders in managing health care in an inpatient climate, in established military hospital catchment areas, concentrating on DoD hospital and CHAMPUS inpatient costs.

Coast Guard-owned: To be developed. CG requirement is to analyze all modes and sources of health care in catchment and non-catchment areas, both inpatient and outpatient, using a geographic information system and modern analytical tools. CG has subscribed to the Triservice CHAMPUS Statistical Database Project as the only source of CHAMPUS management data, and to the Defense Management Information System (DMIS) Resource Analysis and Planning System (RAPS). Additional data will be integrated from Defense Eligibility Enrollment System (DEERS), from Coast Guard-owned databases and from the private sector. Consolidated information on Coast Guard beneficiaries using DoD facilities is not collected by DoD.

Integrated Safety System

Commercial Off-the-Shelf: Several COTS systems have been found useful and will be integrated into KRIS.

Government Off-the-Shelf: Navy system is outdated and does not support analysis required by CG. Air Force system can serve as a model for aviation mishaps but falls short of CG requirements for shipboard analysis.

Coast Guard-owned: Stovepipe systems are redundant and require integration/modernization. A unique opportunity exists to link an integrated safety system with health care systems to help determine the total impact of incidents and to aid in instituting preventive measures.

COAST GUARD YARD AND AIRCRAFT REPAIR AND SUPPLY CENTER

(533) SENATOR LAUTENBERG: Please provide historical data in terms of positions, FTEs, work hours, and payroll costs for both the Coast Guard Yard and the Aircraft Repair and Supply Center (ARSC) for the past five years, up through the anticipated level for 1994.

ADMIRAL KIME: The historical data requested follows. (FY 1992 and FY 1993 figures provided in last year's record were estimates).

CG YARD

Fiscal Year	Civilian FTP	Civilian FTE	Work Hours	Payroll
1989	656	622	1,414,000	$22,406,000
1990*	637	635	1,475,000	$24,606,000
1991	637	677	1,718,000	$28,503,000
1992	638	739	1,675,000	$29,466,000
1993**	632	697***	1,616,000	$31,583,000
1994	632	692***	1,599,000	$32,156,000

* Reduction made in conjunction with contracting out facility maintenance functions.
** Reduction was from Heritage Patrol Boat project cancellation
*** Reflects application of Surge FTE.

AIRCRAFT REPAIR AND SUPPLY CENTER

Fiscal Year	Civilian FTP	Civilian FTE	Work Hours	Payroll
1989	407	399	720,000	$12,177,000
1990	422	434*	745,000	$13,870,000
1991	476	466	838,000	$14,908,000
1992	477	475	963,040	$16,219,000
1993	479	494**	988,000	$17,646,000
1994	475	507**	979,680	$18,201,000

* Increase due to maintenance/repair workload associated with HU-25 and HH-65 aircraft.
** Reflects application of surge FTE.

PRE-POSITIONED POLLUTION RESPONSE EQUIPMENT SITES

(534) SENATOR LAUTENBERG: Please provide an update of the status of the 19 pre-positioned sites indicating a date when each site is expected to be operational.

ADMIRAL KIME: The Coast Guard began delivering equipment to the sites in February 1993. The delivery process is proceeding on schedule and is expected to be complete by January, 1994.

Each site will receive the following equipment: Vessel of opportunity skimming system (VOSS), 5,000 ft. of boom, two oil containment barges, and four low-bed trailers, however a site does not need all of the initial equipment inventory to be operational.

The following sites have received their initial equipment outfitting and are operational:

	Date Delivered
Galveston, Texas	FEB 93
Detroit, Michigan	MAR 93
Astoria, Oregon	APR 93
San Juan, Puerto Rico	MAY 93
Anchorage, Alaska	MAY 93
St. Louis, Missouri	JUN 93

The following sites are scheduled to receive outfitting by December 1993: Each site is expected to be operational within 30 days of the equipment delivery.

Scheduled Delivery

Tampa, Florida	JUN 93
Portsmouth, Virginia	JUN 93
Mayport, Florida	JUL 93
Charleston, South Carolina	JUL 93
New London, Connecticut	AUG 93
Honolulu, Hawaii	AUG 93
Long Beach, California	SEP 93
Corpus Christi, Texas	SEP 93
Seattle, Washington	OCT 93
New Orleans, Louisiana	OCT 93
Miami, Florida	NOV 93
Eureka, California	NOV 93
Boston, Massachusetts	NOV 93

(535) SENATOR LAUTENBERG: In regard to pre-positioned response equipment, please provide an obligation schedule for all funds provided to date for pre-positioned equipment. What types of equipment has been contracted for? When will it be delivered? What future contracts are anticipated for pre-positioned equipment? Please provide a schedule indicating the delivery date for this equipment for each site. Please publish opposite last year's schedule and explain any delta's.

ADMIRAL KIME: All funds allocated for pre-positioned response equipment have been obligated. Each of the 19 sites will receive a Vessel of Opportunity Skimming System (VOSS) with ancillary pumps and prime movers, two portable storage barges, four low-bed trailers, and 5,000 feet of boom.

The following table is the completed obligation schedule:

ITEM	STATUS	DATE
Offshore Boom	Awarded	February 1992
VOSS	Awarded	September 1991
Pumps/Prime Movers	Awarded	September 1991
Low-Bed Trailers	Awarded	April 1992
Collapsible Barges	Awarded	June 1992

The following table is the schedule provided last year:

ITEM	STATUS	DATE
Offshore Boom	Awarded	February 1992
VOSS	Awarded	September 1991
Pumps/Prime Movers	Awarded	September 1991
Low-Bed Trailers	Awarded	April 1992
Collapsible Barges	Not Awarded	May/June 1992

Two additional contracts are anticipated for pre-positioned equipment sites. A few sites will receive dry storage shelters where storage conditions require added protection of the equipment. Eight of the sites will receive an additional upgraded VOSS sweep boom to increase sweep speed and allow skimming in rougher waters ($140,000 each).

Manufacturers are delivering equipment to the three Coast Guard Strike Teams. The Strike Teams are preparing the equipment and having it delivered to each of the sites. The Coast Guard began delivering equipment to the first site in February 1993. Deliveries are scheduled to continue until July 1994. Delivery schedules are flexible as they are dependent upon the Strike Force's operational commitments and the time required for district offices to lease warehouse space where no-cost government warehouse space is not available.

The following table is a schedule of equipment deliveries to the 19 sites published opposite our initial schedule developed last year:

	Current Schedule	Initial Schedule
Galveston, Texas	FEB 93	NOV 92
Detroit, Michigan	MAR 93	NOV 92
Astoria, Oregon	APR 93	JAN 93
San Juan, Puerto Rico	MAY 93	DEC 92

Anchorage, Alaska	MAY 93	APR 93
St. Louis, Missouri	JUN 93	FEB 93
Tampa, Florida	JUN 93	MAR 93
Portsmouth, Virginia	JUN 93	MAY 93
Mayport, Florida	JUL 93	AUG 93
Charleston, South Carolina	JUL 93	MAR 93
New London, Connecticut	AUG 93	MAY 93
Honolulu, Hawaii	AUG 93	APR 93
Long Beach, California	SEP 93	JUL 93
Corpus Christi, Texas	SEP 93	JUN 93
Seattle, Washington	OCT 93	JUL 93
New Orleans, Louisiana	OCT 93	JUN 93
Miami, Florida	NOV 93	AUG 93
Eureka, California	NOV 93	SEP 93
Boston, Massachusetts	NOV 93	SEP 93

All equipment deliveries from the manufacturers, thus far, have been received by the Coast Guard on schedule. The updated site delivery schedule reflects a more accurate assessment of the time required for districts to secure warehouse leases and for the Strike Teams to assemble the equipment, place the equipment on trailers, and coordinate delivery to the sites.

C-130 AVAILABILITY

(536) SENATOR LAUTENBERG: On what date do you expect to complete all installations of the APS-137 forward looking airborne radar on your C-130 aircraft?

ADMIRAL KIME: To date, twenty-five (25) APS-137 Forward Looking Airborne Radars (FLAR) have been installed on U.S. Coast Guard HC-130 aircraft. Current planning is to complete APS-137 installations in May 1994.

(537) SENATOR LAUTENBERG: On what date in 1994 do you expect to have the last aircraft delivered to its appropriate air station?

ADMIRAL KIME: The last aircraft, CG 1708, is scheduled to be delivered to Coast Guard Air Station Clearwater on 14 May 1994.

GENERAL DETAIL

(538) SENATOR LAUTENBERG: Please cite the level and percentage of general detail reduced/added for each OE line item under all budget categories.

ADMIRAL KIME: The information requested follows.
Please note:

(1) If enacted at the level of the President's request, a total of 446 billets will be reduced in the OE appropriation.

(2) The net percentage across all line items calculates to almost an 18 percent reduction to the general detail (67 general detail billets divided by 379 operational billets).

(3) Due to rounding, under any given line item in OE, the percentage may be greater or less than the "15 percent in/15 percent out" convention which was established between the Coast Guard and the Subcommittee staff subsequent to the FY93 budget. There is one intentional exception:

(a) Because of increased training allowance billets associated with the ASW mission, the general detail reduction associated with the line item for Reduced ASW mission Capabilities is higher (24.4 percent) than the standard convention of 15 percent.

US COAST GUARD OPERATING EXPENSES

RCP SUMMARY REPORT BY BUDGET CATEGORY
FY 94

RCP No	BUD Item	Qtr	RCP Title	Mil	General Detail	Military Operation Billets	%
Category - 1 Program Reductions							
343.00		4	CLOSURE & RESTORATION OF FESEC LORA	-105	-14	-91	-15.4
344.00		4	CG FESEC REDUCTION	-32	-4	-28	-14.3
753.00		4	210-FT CUTTER MMA BASE REDUCTION	0	N/A	N/A	N/A
756.00		4	TERMINATION OF ONE TIME COSTS	0	N/A	N/A	N/A
771.00		4	CIVIL SERVICE PERSONNEL REDUCTION	0	N/A	N/A	N/A
772.00		4	ADMINISTRATIVE EXPENSES REDUCTION	0	N/A	N/A	N/A
773.00		4	ASW MISSION CAPABILITIES	-158	-31	-127	-24.4
774.00		2	HH-3F TO HH-60J HELICOPTERS	-106	-13	-93	-14.0
775.00		4	TERMINATE AEW EC-130V D&M OPS	-15	-2	-13	-15.4
776.00		4	VIDS BASE REDUCTION	-4	-1	-3	-33.3
777.00		3	TERMINATE PRES SECURITY KBPT	-58	-7	-51	-13.7
777.01		1	DECOMMISSIONING CGC MACKINAW	-86	-11	-75	-14.7
778.00		4	COMMUNICATIONS SYSTEM MGMT EFFICIEN	-28	-4	-24	-16.7
779.01		4	AUSTERE LOGISITC AIRCRAFT EFFICIENC	0	N/A	N/A	N/A

RCP No	BUD Item	Qtr	RCP Title	Mil	General Detail	Military Operation Billets	%
Category - 2 Built-in Changes							
86.00		4	EXTRA ORDINARY HEALTH CARE COST INC	0	N/A	N/A	N/A
480.00		4	DEFENSE DATA NETWORK (DDN)	0	N/A	N/A	N/A
508.00		2	CG INTERFACE WITH TOPS	6	1	5	20.0
514.00		2	MASS TRANSIT BENEFIT PROGRAM	0	N/A	N/A	N/A
525.00		4	FUNDING FOR MANDATED REIMBURSABLE A	0	N/A	N/A	N/A
750.00		1	ANNUALIZATION OF FY-93 PAY RAISE	0	N/A	N/A	N/A
751.00		4	ANNUALIZATION OF FY-93 PART YEAR FU	0	N/A	N/A	N/A
752.00		4	NON PAY COLA (?%)	0	N/A	N/A	N/A
753.01		4	RESTORATION OF FY93 210 MMA BASE RE	0	N/A	N/A	N/A
779.00		4	ADJUSTMENTS FOR ONE TIME SUPP. APPR	0	N/A	N/A	N/A
780.00		4	PCS ALLOWANCE INCREASES	0	N/A	N/A	N/A
781.00		4	NOAA PAYROLL PROCESSING REIMBURSEME	1	0	1	0.0
785.00		4	RESTORATION OF HH-65A BASE	0	N/A	N/A	N/A
Category - 3 Operate New Facilities							
114.00		4	AC&I SHORE FACILITY CONSTRUCTION FO	0	N/A	N/A	N/A
208.00		4	POLLUTION RESPONSE EQUIP. MAINT. F/	0	N/A	N/A	N/A
330.00		2	VTS UPGRADE FOLLOW ON	5	1	4	25.0
341.00		2	DIFFERENTIAL GPS FOLLOW-ON	31	4	27	14.8
425.00		4	FLAR FOLLOW-ON	0	N/A	N/A	N/A
606.00		4	COMMERCIAL SATELLITE COMMS. ON CG C	0	N/A	N/A	N/A
607.00		4	IRM FOLLOW-ON	0	N/A	N/A	N/A

RCP No	BUD Item	Qtr	RCP Title	Mil	General Detail	Military Operation Billets	%
Category - 4 Increase or Restore Operational Capability							
201.00		2	PASSENGER VESSEL SAFETY PROGRAM	5	1	4	25.0
206.00		2	SPILL RESPONSE EXCERISE SUPPORT STA	19	3	16	18.8
212.00		2	LICENSING OPERATORS OF FED DOC UNIN	0	N/A	N/A	N/A
442.00		2	LIVING MARINE RESOURCE ENFORCEMENT	64	8	56	14.3
530.01		2	WORKLIFE INITIATIVES	8	1	7	14.3
612.00		2	NATIONAL RESPONSE CENTER BILLET INC	7	1	6	16.6
			Grand Totals:	-446	-67	-379	17.7%

OE FINANCING OF AC&I PERSONNEL

(539) SENATOR LAUTENBERG: As you know, the General Accounting Office recently determined that there were personnel financed in the Operating Expenses budget that should rightly have been compensated out of the Acquisition, Construction and Improvement budget. If you were to "make the pot right" between your OE budget and your AC&I budget, what amount of funding would you transfer from OE to AC&I? Please explain how you arrived at this figure and how this situation will be handled in the future so as to rectify the problems found by the General Accounting Office.

ADMIRAL KIME: We cannot provide the information you request at this time. The GAO report was not received until early June and we have not completed our review of the report. The following process is planned to answer both the GAO findings and this record question:

1. 20 JULY -- Letters will be sent to all commands and activities responsible for execution of both AC&I and OE funds. Attachments will be included listing the unit's current personnel allowances, a summary of the FY 1994 President's Budget and a strawman criteria on allocating personnel resources between Appropriations.

2. 20 AUGUST -- Units will respond to Headquarters with validations of the attachments, corrections to the Appropriation codes on personnel allowances based on the strawman criteria, and comments justifying any deviations from the criteria.

3. 1 SEPTEMBER -- Appropriate Commandant directives will be issued expanding Coast Guard policy on personnel resource allocation and management to ensure that the Coast Guard's use of appropriated staffing funds is consistent with the annual Appropriations Act and with general principles governing the proper use of all appropriations.

NON-PAY COLA

(540) SENATOR LAUTENBERG: In regard to the non-pay cost of living adjustment, please provide a full accounting for the amount of non-pay COLA provided for FY 1993. How was this funding distributed between the field and Headquarters? What amount of it was retained by the Commandant for other purposes? What specific purposes were these retained resources used for? Please note the purpose of these resources and the amount of funding with specificity.

ADMIRAL KIME: In FY 1993, the Operating Expenses appropriation received $35,161,000 million in non-pay COLA. Of that amount, $25,282,000 million was distributed to specific accounts under the title "COLA". Of those distributions, $10,708,000 million was provided to funds managers outside of Headquarters, and $14,574,000 was provided to managers of centrally held funds in Headquarters. Centrally held funds include all maintenance funds for shore facilities, electronic equipment, aircraft, cutters, and boats. That category also includes Service-wide health care costs and permanent change of station costs. Headquarters Operating and Maintenance (O&M) accounts were not provided any COLA.

The amount not distributed under the title "COLA" was generally applied towards new costs imposed on the Service by mandate, other external action, unplanned operational costs, and/or non-recurring needs that could not have been met through the federal budget process. These include: (1) DOD's unexpected fee increases for use of the APO/FPO mail transportation system and Automated Household Goods Transportation System (TOPS), (2) the annual bill for the Unemployment Compensation Shortfall (which is received in arrears), (3) the funds needed to pay for the new authority which allows members to ship a second vehicle while under orders for a permanent change of station, (4) increased postal charges, (5) the Mass Transit Benefit program, (6) a Presidential Inaugural Committee staff, (7) additional funds necessary to complete the OPEVAL of the AEW EC-130V,

(8) lease costs of the austere logistics aircraft (9) funding for the Coast Guard's portion of C3IE, (10) one-time extraordinary expenses for relocating SUPCEN Brooklyn, (11) funds for the Maritime Intercept Force and (12) funding for the standard workstation contracting staff. These transactions, in total, approximate the amount of undistributed COLA.

The specific details on these and the many other adjustments, which are necessary to balance the $2.6 billion budget of a multi-mission operating agency at the beginning of the fiscal year, can be found primarily in sections three, four, and five of the FY 1993 OPSTAGE Financial Plan (those which show negative adjustments to AFC-40).

(541) SENATOR LAUTENBERG: What are your preliminary intentions for the $30.3 million requested for the non-pay cost of living adjustment (COLA) in FY 1994? Do you anticipate providing the entire non-pay COLA to the field and Headquarters as a cost of living adjustment? What other designs might you have on this funding for FY 1994, if it is provided?

ADMIRAL KIME: As in prior years, the Coast Guard intends to use all funds received as non-pay COLA for the precise purpose identified in the President's budget request: to fund increased costs of providing the FY 1993 level of services to the public in FY 1994.

We do not intend to provide a flat-rate distribution of non-pay COLA to each of the thousands of accounts in the Coast Guard this year. The diverse mix of goods and services the Coast Guard consumes will experience an equally diverse array of cost growth patterns, some above and some below this year's index. We will strive to address the variation in those patterns through the distribution of targeted COLA and by directly funding some new or increased costs associated with providing the current level of services.

We would like to provide the maximum possible COLA to accounts managed by the operating and field support units, but our ability to do that will depend on the accuracy of our estimates of unfunded mandates, extraordinary cost increases, and non-specific funding reductions.

HURRICANES ANDREW AND INIKI

(542) SENATOR LAUTENBERG: Please provide an accounting of all funds spent for costs associated with the results of Hurricane Andrew and Hurricane Iniki. How does the level spent compare with the supplemental funding level provided?

ADMIRAL KIME: The work to repair damage caused by Hurricanes Andrew and Iniki continues. P.L. 102-368 of September 23, 1992, provided $20 million for the Acquisition, Construction, and Improvements (AC&I) appropriation to cover incremental costs arising from the consequences of Hurricanes Andrew and Iniki. These funds are available until expended. The Coast Guard anticipates incurring hurricane damage recovery costs of approximately $15 million in OE, as shown in the following table:

HURRICANE RECOVERY COSTS (OE)
(Dollars in Thousands)

CATEGORY	PROJECTED OBLIGATIONS
General Operating and Maintenance	$4,364
Shore Facilities	8,258
Electronics	439

Personnel Entitlements	840
Coast Guard Reserve Call Up	1,099
TOTALS	$15,000

The Coast Guard also anticipates obligating approximately $11.5 million in AC&I funds to rebuild Coast Guard Communications Station Miami.

DEFENSE DATA NETWORK

(543) SENATOR LAUTENBERG: In regard to your request for $675,000 associated with the Defense Data Network (DDN), what prompted the change in DOD policy that resulted in this cost being assessed on the Coast Guard? What would be the impact of not participating in the Defense Data Network?

ADMIRAL KIME: DOD policy has not changed. DOD funding was never intended to be long term. DOD provided short term funding in previous years for the use of the Coast Guard's DDN to enable the Coast Guard to participate in several DOD programs requiring DDN access such as the Anti-Drug Network (ADNET), the Joint Maritime Information Element (JMIE) and the Narcotics Tactical Reporting System (NTRS), until our own funding could be obtained through the budget process. DDN is essential for law enforcement connectivety and interoperability with other law enforcement agencies and DOD, it is important for accomplishing many of our other missions as well. Significant amounts of command, control and intelligence information is passed over the DDN communications circuit. Without DDN, Coast Guard multi-mission operations and intelligence support would be severely hampered.

DOD TOPS - AUTOMATED HHG SYSTEM

(544) SENATOR LAUTENBERG: In regard to your $1.025 million request to interface with DoD's automated HHG system, please cite the amount of money that is anticipated to be saved by participating in the DoD TOPS system. Are there no efficiencies to be enjoyed by participating through the new TOPS system? Please provide a detailed accounting to demonstrate how the $1.025 million is a net cost, after benefits and costs are assessed.

ADMIRAL KIME: Although there are no direct savings associated with the Coast Guard's use of TOPS, there is a significant cost avoidance. Participation in TOPS is the primary means for the Coast Guard to avoid future increases in the cost of shipping household goods outside of the DOD system. We estimate that non-DOD rates would increase the Coast Guard's cost of shipping household goods by approximately $10.8M per year. Participation in TOPS allows the Coast Guard to take full advantage of the DOD Personal Property Shipping and Storage Program, including lower household goods shipping rates, made possible by DOD's large volume of moves.

$1.025 million is the start-up cost involved with TOPS, of which $625K will be a recurring annual cost. The investment of this $1.025 million in addition to meeting the anticipated annual Coast Guard cost for TOPS maintenance (including training, system upgrade, and associated personnel costs) will avoid the aforementioned approximately $10.8M annual increase in non-DOD shipping costs.

In addition to the cost avoidance, other anticipated efficiencies include better counseling for Coast Guard personnel shipping household goods, better shipment tracking, enhancement of quality control reviews of carriers, the ability for Coast Guard members stationed at remote sites to have local service (at DOD sites), and quality assurance inspections from DOD personnel.

PCS COSTS

(545) SENATOR LAUTENBERG: What new efforts have been taken to manage costs associated with member's permanent change of station? How does the Coast Guard control these costs? What variables exist that enable the Office of Personnel to manage/minimize these costs?

ADMIRAL KIME: The costs associated with permanent changes of station are primarily controlled by the number of transfer events, and travel entitlements that are determined by statute. Other factors include the number of dependents, the distance of the transfer, and the type of duty the member is ordered to or from. About half of the transfers are normal tour rotations, while the remainder must be accomplished to facilitate long-term training, accessions, and attrition from the service.

New assignment policies have been developed for enlisted personnel that permit adjacent pay grades to fill certain billets, e.g., E-8's in E-9 billets and vice versa. These new policies also permit closer adherence to tour length policies for enlisted members by reducing the need for transfers resulting from promotions. With heightened emphasis on geographic stability, we expect the number of travel orders for FY93 to decrease by approximately 500. A significant portion of the decrease is attributable to slowed attrition based on private sector economic factors. However, cost per transfer continues to increase as a result of increased travel entitlements and higher expenses to ship household goods and personal effects.

In addition to new efforts to limit the number of moves, the Coast Guard controls costs by limiting the distance of moves (ie. fewer coast-to-coast transfers), encouraging Do-It-Yourself (DITY) moves, and considering family size when making assignments. Candidates for overseas or independent assignments are screened to ensure members (and their dependents for overseas moves) are capable of completing the full tour assignment.

Variables that have allowed us to manage/minimize costs, especially during FY92 and FY93 include; (1) an increase in retention due to the economy, resulting in fewer attrition and accession moves, (2) demographic changes resulting in more members requesting geographic extensions, and (3) an increase in civilian candidate pools due to the economy, resulting in less costly local hiring, as compared to out of town recruiting.

(546) SENATOR LAUTENBERG: Please provide a table displaying total PCS costs for each year for the last five years, as well as anticipated costs for FY 1993 and FY 1994.

ADMIRAL KIME: The following table is provided:

FISCAL YEAR	Amount ($000)
1988	$52,294
1989	$51,446
1990	$58,474
1991	$63,343
1992	$60,140
1993 Estimated	$62,473
1994 Estimated	$64,184

Note: The above data includes events that are not permanent change of station reassignments (such as accessions, separations, student dependent travel, return of remains, etc.), but are included in the PCS account.

DISTRICT REBALANCING

(547)SENATOR LAUTENBERG: Admiral Herr stated in his cover letter accompanying the FY 1993 OPSTAGE Budget that, in regard to district rebalancing efforts, details would be provided to the field in separate correspondence. Please provide copies of all such correspondence to the field regarding district rebalancing efforts, and describe these efforts. What are billet/resource ramifications of these efforts?

ADMIRAL KIME: The rebalancing effort discussed in the FY93 OPSTAGE Budget was based upon the first-ever, comparative analysis of base funding levels in the Coast Guard's ten districts. This review and analysis was a positive step towards actively managing the Coast Guard's financial base; it did not address billets and positions. The intent of this review was to ensure that financial resources were equitably and efficiently distributed among the districts to improve organizational effectiveness. The results of this analysis indicated that inequities existed between districts.

Rather than drawing down district funding bases to rebalance, FY93 non-pay COLA funds were used to make adjustments and improve allocations to district offices. The Chief of Staff provided $203K to fund a net shortfall identified by this analysis.

Copies of the letters sent to each of the 10 Coast Guard district commanders regarding this rebalancing effort are provided. The rebalancing of the base referred to in paragraph four of Resource Director's 10 February 1993 letter is consistent with the rebalancing question for the record (#258) submitted to you during your review of the FY 1993 budget last year ... after considering changes in the financial plan during FY 1992 and adjustments during OPSTAGE FY 1993.

[CLERK'S NOTE.--Due to its size, the document entitled, ''Fiscal Year 1992 Final District Spending Plan Analysis,'' does not appear in the hearing but is available for review in the subcommittee files.]

E2C, LBA, SBA

(548) SENATOR LAUTENBERG: Your OPSTAGE budget request for FY 1993 captures $456,000 associated with a withdrawal of E-2Cs, land-based aerostats, and sea-based aerostats. Did the Congress not cut enough out of your base to reflect the full cost of the E-2Cs, LBAs and SBAs?

ADMIRAL KIME: Congress removed sufficient funds from the Coast Guard's base for these initiatives.

The OPSTAGE Financial Plan is a tool used by the Coast Guard to distribute funds within the agency. The transaction you identify in that document was not a capture of funds, rather, it represents a redistribution of the reduction.

In the FY 1992 Operating Stage Financial Plan, a series of entries were executed which distributed the $66.28M LBA/SBA/E2C cut among accounts which had funded the operation of those facilities. The operating program that absorbed the Operations and Maintenance (O&M) cut appealed to the Chief of Staff, indicating that the cut removed more funds than were actually provided in its LBA/SBA/E2C base. Upon review, the Chief of Staff accepted this contention, and to make the operating program whole, $456,000 was added to the program's O&M account in FY 1992 CIFP #110. That transaction was annualized by OPSTAGE FY 1993 item #4110.00.

DEFINITION OF R&D PROJECTS

(549)SENATOR LAUTENBERG: The Senate report accompanying the FY 1993 appropriations act required you to submit to Congress a detailed definition for projects to be funded under your R&D account, versus your AC&I account or your OE account. Please print your promulgated definitions in the record at this time.

ADMIRAL KIME: A copy of Commandant Instruction 7300.6, Purpose and Use of Coast Guard Appropriations is provided for the record. This recently revised instruction defines the differences between the RDT&E, AC&I and OE accounts.

[CLERK'S NOTE.--Due to its size, the document entitled, ''Purpose and Use of Coast Guard Appropriations,'' does not appear in the hearing but is available for review in the subcommittee files.]

BUSINESS CLASS AND FIRST CLASS FLIGHTS

(550) SENATOR LAUTENBERG: Under what circumstances might any Coast Guard personnel, be they military or civilian, fly first class or business class on any domestic or international flight?

ADMIRAL KIME: OMB Bulletin 93-11 of April 19, 1993 directs changes be made to the various travel regulations concerning the use of first-class travel accommodations by civilian employees, military personnel, and others. Pending implementation of those changes, the following regulations and procedures are being followed:

FIRST CLASS: With one exception for military personnel, under the Federal Travel Regulations and the Department of Transportation Travel Manual (civilian employees) and the Joint Federal Travel Regulations (JFTR) (military personnel) only the Commandant or Vice Commandant may authorize or approve first-class travel at Government expense. To be approved, one or more of the following conditions must exist:

1. Space is not available in less-than-first-class accommodations on any scheduled flight in time to accomplish the purpose of the travel, which is so urgent that it cannot be postponed.
2. First-class accommodations are needed because the person is physically impaired to the extent that other accommodations cannot be used and such condition is supported by a statement from competent medical authority.
3. First-class accommodations are needed for security reasons or because exceptional circumstances, as determined by the Commandant, make such use essential to the successful performance of the mission.
4. Less-than-first-class accommodations on foreign carriers do not have adequate sanitation or health standards.
5. The use of first-class accommodations would result in an overall savings to the Government based upon economic consideration such as the avoidance of additional per diem costs, overtime, or lost productive time that would be incurred while waiting for less-than-first-class accommodations.

Funded first-class accommodations may be used by military personnel without authorization only when regularly scheduled flights between the authorized origin and destination (including connection points) provide only first-class accommodations.

BUSINESS CLASS: For civilian employees, the circumstances and rules applicable to first class travel also apply to business class travel. For military personnel the local transportation officer or other appropriate officer, in conjunction with the order-issuing authority, may authorize or approve business class travel on U.S. flag air carriers, if coach class is not available and when the only other alternative that would meet the mission is the use of foreign-flag air transportation.

It is important to note however, the JFTR authorizes military members, at no additional cost to the government, to use earned mileage credits from official travel for accommodation upgrades while on official Government travel.

(551) SENATOR LAUTENBERG: Are any personnel compensated by the operating expenses account or any other Coast Guard account authorized to fly business class or first class? If so, what personnel, and under what circumstances.

ADMIRAL KIME: Yes. The use of appropriated funds for both of these premium class air accommodations is authorized in very specific instances and pertains to all personnel on official Government business. In accordance with DOT regulations and the Joint Federal Travel Regulations, the Commandant or Vice Commandant may authorize or approve premium class air accomodations only if certain conditions are met. The criteria that must be met was addressed in response to a previous question.

(552) SENATOR LAUTENBERG: What was the estimated level of expenditures for business class and first class flights in FY 1992 and FY 1993? What level is anticipated for FY 1994?

ADMIRAL KIME: The Coast Guard does not track the additional costs of business class air travel. Additional costs for first class travel are as follows:

FY 1992	NONE (actual)
FY 1993	$10,020 (estimated) ($8,520 actual between 1OCT92 and 1JUN93)
FY 1994	$6,000 (estimated)

First class travel is rarely authorized and the majority of cases listed above have been the result of humanitarian and medical emergencies. FY 1993 figures (actual) include seven first-class trips with one additional first-class trip estimated for the remainder of FY 1993. The FY 1994 estimate is based on four first-class trips.

INFORMATION RESOURCE MANAGEMENT (IRM) FOLLOW-ON

(553) SENATOR LAUTENBERG: In FY 1993, your budget requested a $4.6 million increase for information resource management (IRM) follow-on. Of the amount requested, Congress provided $3.6 million. Following this Congressional action, the Chief of Staff took a $1.5 million non-recurring reduction in IRM operating costs. Why was this additional reduction taken? When was it made clear to the Coast Guard that something less than $3.6 million would be required for IRM costs in FY 1993?

ADMIRAL KIME: All of the $3.6 million provided in FY93 for IRM Follow-on was required by and provided to those projects identified in the budget request as adjusted by Congress to be consistent with the changes outlined in hearing testimony and questions for the record. While the FY93 IRM Follow-on request included funds to operate and maintain LEIS II, the request did not include funds to upgrade field unit standard workstations (which are used for many applications, not just LEIS II) as funds to recapitalize the standard workstations are generally considered to be part of the "base." In June 1992, to facilitate a centralized purchase, the Chief of Staff provided the Office of Command, Control and Communications $3.1 million to acquire standard workstation hardware upgrades for field units which were necessary to ensure all units could access the Law Enforcement Information System II (LEIS II). This hardware upgrade enhanced each unit's overall system capabilities, in some instances providing benefits beyond the ability to access LEIS II. Thus, units that received an upgrade avoided a portion of their hardware costs in FY93. As a partial offset, during the FY93 Operating Stage budget distribution, a non-recurring reduction totaling $1.5 million was taken from those field units that received the upgrades in FY92. This non-recurring reduction was applied to field units based upon the value of the hardware they received from the upgrade.

(554) SENATOR LAUTENBERG: In FY 1994, you are requesting $3.55 million in additional IRM follow-on costs. What specific IRM systems did not require O&M funding in FY 1993, contrary to your expectation with your $4.6 million budget request? What, if any, of those systems are funds requested in FY 1994 under your $3.55 million request?

ADMIRAL KIME: During FY 1993 budget hearings, I identified $985K in reductions to the IRM Follow-on request due to project slippage. A reduction of $235K resulted from delays in the Supply Center Curtis Bay Computer System replacement project and a reduction of $750K resulted from slippage in the Ports and Waterways Management Information System (PAWMIS) project. Neither project is included in the FY 1994 IRM Follow-on request of $3.55 million. All of the projects requiring IRM follow-on funding in FY 1994 are on schedule and the full request of $3.55M is needed.

(555) SENATOR LAUTENBERG: Please provide a table detailing Coast Guard IRM Systems in operation that exceed $50K in annual operations and maintenance costs and any system mentioned in the FY 1992, 1993, and 1994 OE IRM follow-on Q&As. Provide their relevant actual operating or anticipated ('93 & '94) costs for FY 1992, FY 1993, and FY 1994. Please be sure to separate this table by IRM systems.

ADMIRAL KIME: The Coast Guard does not normally compile these costs by Information Systems. However, the following table lists the IRM Systems which should meet the criteria you have specified. A data call for this information has been solicited CG-Wide. I will provide a complete listing of Coast Guard IRM Systems, with FY 1992, FY 1993, and FY 1994 operating costs as soon as this list is compiled.

Program	ACRONYM	SYSTEM NAME
G-E	ACMS	Aviation Comput Maint System
G-C	AFTS	Automated Funds Xfer System
G-E	AIM	Accountable Item Management System
G-A	AMIS	Acquisition MIS
G-E	AMMIS-SASI-CLAS	ARSC-Closed Loop Aeronautical
G-N	AMVER	Automated Mutual Vessel Rescue Sys
G-E	ARMS	Automated Requisition Mngmnt Sys
G-E	ATIMS	Aviation Technical Info Sytem
G-N	ATONIS	Aids to Navigation Info System
G-E	AUTODAM	Automated Damage Control
G-N	AUXMIS	Auxiliary Mngmt Info System
G-N	CASP	Computer Asstd Search Planning Sys
G-T	CDB II	CG Corporate Database
G-E	CE-CAD	Civil Eng CAD
G-E	CEDS	Civil Eng Data System
G-E	CGDDMS	CG Digital Data Management System
G-P	CIVPMIS/CUPS	Civilian Pers MIS/Civ Unif Pay Sys
G-E	CM	Configuration Management
FINCEN	DAFIS	Departmental Acctg & Financial Sys
G-N	DMPS	Iceberg Data Management
G-E	ESFRS	Electronic Supply Fund Reporting Sy
FINCEN	FCIS	Finance Center Imaging System
G-E	FEMSS	Facility Engineering Mgt Support Sy
G-O	FMIS	Facility Management Info System
G-T	IRIS	Incident Reporting Information Sys
G-O	JMIE	Joint Maritime Information System
G-K	KRIS	Health and Safety Resource Info Sys
G-N	LAAPS	Laptop Automated ATON System
G-L	LAWS	Legal Automated Workstation System
G-L	LDRS	Legal Document Research System
G-O	LEIS I/II	Law Enforcement Information System

G-E	LG/NE-CDR	Logistics Naval Engineering CD-ROM
G-N	LOIS	LORAN-C Operations Information Sys
FINCEN	LUFS	Large Unit Financial System
G-M	MMLD	Merchant Marine Licensing & Doc Sys
G-E	MMS	Materiel Management System
G-M	MSIS	Marine Safely Info System
G-E	NE-CAD	Naval Eng CAD
NPFC	NIMIS	NPFC Integrated Mgt System
G-N	NOTMAR	Notice to Mariners DB
G-P	PDDS	Personnel Data Decision System
G-P	PMIS/JUMPS II	Personnel Mgt and Pay System
G-E	PPA	Personal Property Accounting System
G-N	RBS	Recreation Boat Safety System
G-E	SAIL	Sys to Autom. & Integrate Logistics
G-N	SARMIS	SAR Management Information System
G-N	SARSIM	SAR Simulation Model
G-E	SCAMP	Shipboard Computer Aided Maint Prog
G-E	SCB/MIS	SUPCEN BRKLYN Mngt Info System
G-E	SCCB/MIS	SUPCEN Curtis Bay Mngmt Info System
G-E	ULMS	Unit Logistics Mngmt System
G-R	UMIS	Reserve Unit Mngmt Info System
G-M	VIDS	Vessel IDentification System
G-E	YFMS	CG YARD Financial Mngmt System

INFORMATION RESOURCE MANAGEMENT (IRM) FOLLOW-ON

(556) SENATOR LAUTENBERG: Is there any updated information to indicate that less than the $3.55 million will be necessary in FY 1994? If so how much will be necessary?

ADMIRAL KIME: The information presented in the FY 1994 budget request for IRM Follow-on is up to date. All of the IRM projects requiring follow-on funding in FY 1994 are on schedule and the full request of $3.55M is needed.

VESSEL IDENTIFICATION AND DOCUMENTATION SYSTEM (VIDS)

(557) SENATOR LAUTENBERG: Please explain why you are seeking to retain 3 military billets and 1 civilian position to perform program management functions for the vessel identification and documents system (VIDS). Will the VIDS be operational in 1994? If not, what management functions will these 4 positions perform in FY 1994?

ADMIRAL KIME: VIDS will not be operational in 1994. VIDS should begin its operational phase 2nd QTR FY96. The billets/positions will perform the following during the interim period.

The four billets/positions are program management personnel responsible for providing guidance to the acquisition staff tasked with the procurement of this system. Their primary functions will be to ensure that the acquisition meets Coast Guard needs. This is essential given the potential for changing legislation, the myriad of federal and state interactions, and changes in technologies which may improve the capabilities.

Equally important is the need to have all potential customers aware of the capabilities of this product. This will involve: marketing VIDS, which by statute will be a voluntary system; conducting state liaison to educate state agency users; coordinating with federal agencies affected by or interested in using VIDS; and interfacing Coast Guard requirements with prototype communications and demonstration models.

In addition, these billets will support the Marine Information for Safety and Law Enforcement (MISLE) project as members of the Coast Guard's evaluation team. This role will be to participate in the evaluations of the fit of VIDS within MISLE.

(558) SENATOR LAUTENBERG: Will these 4 positions conduct management activities relating to the entire MISLE project, or just for the VIDS project.

ADMIRAL KIME: Yes. Because VIDS is a component of MISLE, these positions will be involved with both. This is essential for VIDS to be properly integrated into the MISLE acquisition.

MISLE SAVINGS

(559) SENATOR LAUTENBERG: In a July 1989 FEDSIM report, approximately $500,000 in savings were identified resulting from the personnel efficiencies realized through the implementation of the Seamen Documentation and Licensing product set. With the further development of this product set, what is your estimation of the savings to be realized? Do any other product sets or aspects of the MISLE offer potential cost savings? If so, how much and when will these savings be realized?

ADMIRAL KIME: The Seamen Documentation and Licensing product set is identified as the Merchant Mariner's Licensing and Documentation (MMLD) module of the Marine Safety Network (MSN). MMLD is presently in the pilot stage and is being deployed at two Regional Exam Centers (RECs) for testing purposes. Full operational deployment of MMLD will take place in September, 1994 at all RECs. Because the module is not yet fully operational, no cost savings have been realized to date.

The cost savings identified in the July 1989 FEDSIM report are identified as decreases in Coast Guard and contract staff. The Oil Pollution Act of 1990 (OPA-90) placed additional requirements on RECs such as user fee collection, National Driver's Register (NDR) checks, and Merchant Mariner Documentation renewals. These requirements resulted in an increase in REC staff requirements. This increase will offset any savings that would have been realized by MMLD.

The requirements for the remaining system modules, under the MISLE project, have only been defined broadly. Therefore it is too early to estimate their potential cost savings.

COMMANDANT'S VISION

(560) SENATOR LAUTENBERG: What is your vision of the United States Coast Guard in the year 2020? What will be the Coast Guard's priority missions? What current missions will the Coast Guard no longer perform? What new missions will the Coast Guard inherit? What will be the Coast Guard's role in international maritime safety? What is the Coast Guard's largest challenge in preparing for the future?

ADMIRAL KIME: The projection of U.S. Coast Guard operations and roles out to 2020 will not yield a sharply focused picture. Therefore, the projection of our activities must be qualitative in nature, and indeterminate in scope. Given those caveats, the following is a projection of the Coast Guard in the year 2020.

Unless there are dramatic changes to the laws and executive orders that govern the activity of the U.S. Coast Guard, it is expected that we will continue to be involved in the four major roles that the service is currently charged to execute: Marine Environmental Protection, Maritime Law Enforcement, National Security and Maritime Safety. Our priority activities within these four roles will be governed, as in the past, by externalities that drive major events that impact the scope and accent of our operations. Clearly the Coast Guard, because of its capabilities and experience, is an attractive organization in executing any new federal initiatives within the maritime environment which call for rapid response and seagoing expertise.

We can, over a relatively short period of time, determine our strategic direction. The collateral issue is the "how" of the execution of the roles once the organizational direction is determined. The technological revolution currently underway will strongly influence how we execute our roles in the future.

We anticipate that the Coast Guard will maintain it's leadership role in international marine safety through participation in the International Maritime Organization and other international fora.

The largest challenge that we face in preparing for the future is uncertainty on two levels. The most difficult is timeliness of response in order to keep pace with rapidly changing national priorities. The second level is stability and professionalism in the work-force considering the organizational environment that is projected over the time period concerned.

QUESTIONS SUBMITTED BY SENATOR BYRD

COAST GUARD OPERATIONS SYSTEM CENTER

(561) SENATOR BYRD: Admiral Kime, the FY 1990 Transportation Appropriation bill included my amendment in the amount of $900,000 above the budget request to facilitate the relocation of the Coast Guard's Computer Center from Governors Island, New York, to Martinsburg, West Virginia. The Senate report accompanying the FY 1991 Transportation Appropriation bill included language, at my request, in support of the President's full budget request of $3,800,000 to establish and operate the Coast Guard Operations Systems Center in Martinsburg, West Virginia.

The Coast Guard Operations Systems Center is now an active military unit that supports Coast Guard search and rescue and law enforcement missions, the Marine Safety Information System, and the Joint Maritime Information Element. This facility employs approximately 100 civilian and military personnel, with an annual economic impact of approximately $7 million. I am told that the Coast Guard is currently developing a master plan for the Coast Guard Operations Systems Center in Martinsburg. This master plan will address facility issues, growth capacity and what role the Operations Systems Center in Martinsburg will play in the Coast Guard's network of information and communications facilities. This master plan, is scheduled to be completed this spring. Admiral Kime, please provide for the record a summary of the completed master plan, along with a copy of the entire plan for the Committee files.

ADMIRAL KIME: The Operations Systems Center (OSC) master plan will not be completed until late this year. A first draft of the master plan focused on the present activities at OSC. It only included planning to continue the operation and support of major computer systems for the Coast Guard at OSC. Two other initiatives may significantly influence the OSC master plan. First, a separate study is looking at consolidation of other command, control and communications development and support activities. Second, a separate but closely linked study will evaluate the benefits of centralization of all information systems management, acquisition, development, maintenance, support and operation including software development in support of Coast Guard missions. OSC Martinsburg is a potential location for consolidated activities that may result from these studies. Including the results of these planning initiatives will result in a more comprehensive and useful master plan making the delay in the master plan worthwhile. The Coast Guard will provide you a copy of the master plan as soon as it is finished.

(562) SENATOR BYRD: I am also told that this master plan reflects the decision to locate the Coast Guard network control facility at the Coast Guard Operations Systems Center in Martinsburg. There may be further opportunities for consolidation of information resources and communications facilities outside Washington that the Coast Guard operates. Since the Operations Systems Center operates 24 hours a day, 365 days a year, it would seem to be a logical choice for the

Coast Guard to locate other information resource and communications activities at this site. What advantages would consolidation at Martinsburg bring to the overall Coast Guard information resource management approach?

ADMIRAL KIME: The Coast Guard presently has a distributed organization in terms of information systems management, acquisition, development, maintenance, support and operation. We are in the process of developing alternatives to consolidate and centralize these functions to maximize efficiencies. The Operations Systems Center is a potential location for these activities. Consolidation will facilitate improved management and productivity which will be gained through reduced overhead and economies of scale.

QUESTIONS SUBMITTED BY SENATOR SASSER

USCG ACTION UNDER THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT (ISTEA) OF 1991

(563) SENATOR SASSER: It's been over a year since the ISTEA was enacted. During that time, much of the focus has been on trying to understand the change of direction under law, and the scope of intermodalism. The United States Coast Guard, as an agency with a dual mission, has an interesting role to play in the intermodal transportation development process. As it relates to the Coast Guard's marine safety mission, what specific action has the Coast Guard initiated or participated in that can be cited as promoting intermodalism as a direct result of passage of ISTEA?

ADMIRAL KIME: The Coast Guard's Office of Marine Safety, Security and Environmental Protection is represented on DOT's Office of Intermodalism, Interagency Intermodal Coordination Planning Committee. As a member of this committee, the Coast Guard contributes technical expertise on intermodal issues as they relate to the port interface and the movement of goods and commerce through U.S. ports. In addition, the Coast Guard contributed to the Office of Inter-modalism's January 1993 "Report on Intermodal Activities in the Department of Transportation."

The Coast Guard also conducts joint DOT hazardous materials enforcement operations at major U.S. ports. In addition to local Coast Guard Captain of the Port personnel, these intermodal enforcement operations typically include representatives from DOT's Research and Special Programs Administration, the Federal Railroad Administration, the Federal Highway Administration, and State and local hazardous materials enforcement personnel. The aim of these operations is to target and inspect containerized hazardous materials shipments as they pass through the port interface to and from vessels. Beyond the outstanding intermodal cooperation, support and training fostered by these operations, they have proven highly successful in identifying and correcting modal specific hazardous materials shipment violations.

COST SAVINGS FROM NEW MARINE SAFETY TECHNOLOGIES

(564) SENATOR SASSER: Research and development of new technology is an important part of the Administration's economic plan, and an appropriately critical element of the Coast Guard mission. How will research and development of new technologies within the Coast Guard Budget, specifically in the area of marine safety, produce cost-savings in the long-term?

ADMIRAL KIME: The Coast Guard always looks for ways to perform its missions more efficiently. However, the principal objectives of most Research and Development (R&D) in the Marine Safety program are to reduce loss of life and property and limit environmental damage.

These objectives are usually accomplished through the development of more effective construction and equipment standards for vessels, improved vessel inspection techniques, and better crew training. In FY94 we have requested funding for projects in the areas of naval architecture and stability, innovative inspection techniques, and human factors analysis that will directly support these objectives.

Most cost-savings, resulting from R&D in support of the Marine Safety program, will be realized by industry and the public through reduced loss of life and property and a reduction in environmental damage.

WORKFORCE IMPACT OF NEW TECHNOLOGIES

(565) SENATOR SASSER: How will the development of new technologies affect the size and composition of the Coast Guard's workforce?

ADMIRAL KIME: New technologies may, in some cases, reduce the overall workload requirements, which could translate into a reduction of staffing requirements. Examples of new technologies that have the capability of generating staff reductions are: the Polar Icebreaker Replacement (PIR) and the Seagoing Buoy Tender Replacement (WLB(R)).

However, it is likely that the development of new technologies will also result in a change in the composition of the Coast Guard workforce. That is, new technologies will likely require a greater percentage of more highly trained and technically skilled workers.

FISHING VESSEL OPERATIONS

(566) SENATOR SASSER: The National Transportation Safety Board cited Fishing Vessel Safety among its "Most Wanted" list of needed transportation improvements. FY94 Coast Guard Budget requests $187,000 to begin to "implement a licensing plan to license operators of federally documented uninspected fishing vessels". Approximately how many fishing vessels would fall within the scope of the proposed plan?

ADMIRAL KIME: The licensing plan estimates that there are approximately 29,750 federally documented commercial fishing vessels that will be required to have licensed operators. The plan also estimates that number could possibly grow to as high as 42,250 fishing vessels over the next seven years.

(567) SENATOR SASSER: What specific commercial and industry training requirements must be met before a certificate of completion would be issued?

ADMIRAL KIME: The revised Executive Summary to the licensing plan, endorsed by the Coast Guard and the Commercial Fishing Industry Vessel Advisory Committee, discusses the training requirements for a license as Master of uninspected fishing industry vessels. To obtain a certificate of completion from a Coast Guard approved training course, a Master of fishing vessels less than 79 feet will be required to receive basic knowledge of stability, navigation, collision prevention rules, seamanship, personal survival, first-aid, and CPR. The Master of fishing vessels less than 200 gross tons must receive training of collision prevention rules, stability, fire prevention and control, fishing vessel regulations, weather, personal survival, first-aid, CPR, and navigation skills, to include electronic navigation and seamanship.

CRUISE SHIP SAFETY

(568) SENATOR SASSER: Approximately how much does it cost the U.S. government to make such inspections?

ADMIRAL KIME: The cost to the U.S. government for the required control verification examinations for foreign passenger vessels is approximately $4,200 per year per vessel. This figure includes an annual examination and three subsequent quarterly examinations done at a U.S. port. Additionally, foreign passenger vessels embarking passengers for the first time in a U.S. port must also complete an initial control verification examination which includes a plan review conducted by the Coast Guard Marine Safety Center. The cost of the plan review to the U.S. government is approximately $4,000 per vessel, in addition to the $4,200 mentioned above.

(569) SENATOR SASSER: Aside from any future amendments addressing fire safety standards, to what extent can or have penalties been assessed against foreign flag vessels that fail Coast Guard inspection?

ADMIRAL KIME: Civil penalties can only be assessed against foreign flag vessels for violation of U.S. laws which primarily concern navigation safety and pollution prevention. However, foreign flag vessels which fail Coast Guard control verification examinations are not allowed to embark passengers in U.S. ports until the deficiencies are corrected. Serious violations of international laws may also result in the vessel being detained.

1992 FIRE SAFETY AMENDMENTS

(570) SENATOR SASSER: The FY94 budget includes a request for $646,000 for the passenger safety program. The budget justification indicates that the United States and the International Maritime Organization (IMO) have developed a series of amendments to address fire safety aboard existing passenger ships. According to the budget document, the first set of amendments would come into force in 1994, and the remaining amendments over staggered intervals through the year 2010. What is the essence of the amendments and how will staggered enforcement address safety concerns in the near term?

ADMIRAL KIME: In 1992 the IMO passed two sets of fire safety amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended. One set of amendments applies to existing passenger ships, the second set applies to all new ships. Both sets of amendments enter into force on 1 October 1994. New passenger ships will be required to be constructed to a higher level of fire safety. Similarly, existing ships will be required to upgrade to a higher level of fire safety over a phased schedule. Mandated increased fire protection measures include automatic sprinkler systems, smoke and fire detection systems, and structural fire protection upgrades.

The amendments divide existing ships into two categories, depending on vessels' current level of fire safety. Ships which do not currently meet a minimum level of fire safety will be required to upgrade on an aggressive schedule, while ships which meet this minimum level will have a more relaxed schedule. In each case, major modifications are required prior to 1 October 1997. Regardless of category, the end product will be significantly safer ships.

IMPACT OF FY94 R&D ON PASSENGER VESSELS

(571) SENATOR SASSER: The Research and development account requests $750,000 for fire safety technology. $390,000 of the total amount relates to improved fire safety for commercial vessels. What impact will such technology provide for passenger vessel safety in the near term?

ADMIRAL KIME: Passengers are continually exposed to new risks resulting from new vessel designs and contruction materials because designers have begun to use large open spaces with glass partitions (bulkheads) and newer light weight materials contain plastics that generate dense black smoke when they burn. The Coast Guard's projects to improve fire safety for commercial vessels will directly impact passenger safety by:

- developing minimum standards of performance and reliability for fire suppression systems in passenger accommodation spaces. These systems will increase passenger safety since they protect the spaces in which passengers live and sleep.

- developing smoke generation standards for interior finishing materials as part of a cooperative international effort. There is currently no international limit on the smoke production characteristics of interior finishing materials.
- developing guidelines for the protection of engine rooms so that systems other than carbon dioxide or Halon flooding systems can be properly evaluated and used. Currently, engine rooms account for about one third of all shipboard fires.
- evaluating the hazard of heat radiation through windows. Requirements will be developed to ensure that passengers are properly protected; and,
- researching smoke leakage through doors, ventilation dampers and similar construction penetrations. Minimum standards will be developed in order to limit the spread of life-threatening smoke throughout a ship.

ANNUAL LOSSES DUE TO FIRES AND EXPLOSIONS

(572) SENATOR SASSER: What are the present annual costs and casualties attributed to fires and explosions aboard vessels? How will fire safety technology produce the $3.5 million in savings and save 3 lives as indicated in the budget justification?

ADMIRAL KIME: The Coast Guard recorded four deaths, 18 injuries and $8,810,345 in losses in FY92. These numbers can vary greatly from year to year, so it is difficult to present an "annual cost" as a budgetary concept.

The estimated savings are projected to be achieved through prevention based on the information obtained from the Improved Fire Safety of Commercial Vessels project. Information from this project is used to improve rules and regulations governing commercial vessels, port facilities, and waterways under Coast Guard jurisdiction.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

SEAGOING BUOYTENDERS

(573) SENATOR D'AMATO: The Coast Guard has requested $45 million for 2 seagoing buoytenders which are to have oil recovery capabilities. Funds are to be derived from the Acquisition, Construction and Improvements account. Please provide your estimates on the complete costs of these vessels, and how the Coast Guard plans to assure their delivery within the estimated production costs.

ADMIRAL KIME: The complete cost for the two option vessels is $65 million, including vessel construction, Spilled Oil Recovery System (SORS), project administration, testing and evaluation, and support. The $45 million requested in our FY94 request will be combined with $20 million in carryover funding to procure two option vessels. To control production costs the contract requires, and we have in place, a formal cost/schedule tracking system to monitor the performance of the contractor as the work proceeds and to provide early indications of any variances in contract cost and scheduled delivery. We also have on-site inspection personnel to stay in constant communications with the shipyard and monitor construction.

(574) SENATOR D'AMATO: When do you anticipate that the 2 new vessels would be completed and ready for deployment?

ADMIRAL KIME: The Coast Guard intends to exercise the contract option to acquire up to two additional seagoing buoy tenders (WLBs) during FY94. Both would be delivered in FY97. Option vessels will then be ready for operational deployment 8 weeks after delivery.

(575) SENATOR DAMATO: How will the addition of these new vessels affect the Coast Guard's future needs for vessel support systems. Do you anticipate the need for additional funding to support the new vessels?

ADMIRAL KIME: Fleet support requirements for the new seagoing buoy tenders (WLB) are currently in the planning phase. Because the new vessels use modern technology, exact support requirements will be different than for the current fleet. For example, it is expected that the off-the-shelf electronic and computerized technology for integrated command and control systems will affect the existing vessel support structure. It is anticipated that most, if not all, of our WLB support requirements can be met within current funding levels by reprogramming existing support resources. Analysis is ongoing to assess the impact of these new systems, and determine if additional support resources will be required.

DRUG INTERDICTION

(576) SENATOR D'AMATO: Please provide for the record your estimates of the amounts, dollar values and kinds of illegal drugs that the Coast Guard interdicted during FY 1993 and compare these amounts to FY 1992.

ADMIRAL KIME: The table below provides seizure data in which the Coast Guard was the primary agency and those in which we assisted other agencies.

	USCG INTERDICTED	USCG ASSISTED	TOTAL	STREET VALUE
COCAINE[1]				
FY 1992[2]:	15,952	29,537	45,489	$2.35 Billion
FY 1992:	16,702	32,249	48,951	$2.50 Billion
FY 1993[3]:	25,986	17,203	43,191	$2.20 Billion
MARIJUANA[1]				
FY 1992[2]:	37,798	62,024	99,822	$259.5 Million
FY 1992:	50,715	66,134	116,849	$303.8 Million
FY 1993[3]:	48,917	23,785	72,692	$188.7 Million

1. Contraband measured in pounds.
2. Through 30 June 1992
3. Through 30 June 1993

(577) SENATOR D'AMATO: Have your patrols identified any changes in drug trafficking activities? Are new patterns or methods emerging in the smuggling of illegal drugs?

ADMIRAL KIME: The goal of our drug interdiction program is to deny the smuggler the use of particular maritime routes. Intelligence reports indicate a shift in smuggling patterns as well as a shift to more expensive methods of shipping drugs as a result of the Coast Guard resource employment strategies. For example, Coast Guard counterdrug operations have noted that maritime narcotics traffickers are making greater use of commercial maritime carriers to transport drug cargoes, while simultaneously employing increasingly sophisticated non-commercial vessels, procedures and electronics to conduct their smuggling ventures. The Coast Guard seizure of the M/V HARBOR in 1992 with five metric tons of cocaine aboard and other foreign nations' seizures of commercial vessels are indicative of the traffickers' use of larger vessels in the movement of cocaine to the US. Within the last several years, traffickers have also begun employing vessels which are extremely hard to detect either visually or by electronic means. Maritime smugglers have also begun using routes in the Eastern Pacific to travel from South America to points in northern Central America/Mexico and, to a lesser extent, directly to the U.S., more frequently than in the past. Unlike the Caribbean, the Pacific routes offer little in the way of geographic chokepoints. Recently, the maritime smuggling of bulk loads of South American grown marijuana has re-emerged along with the smuggling of "mixed" loads of cocaine, marijuana, heroin, or hashish. Traffickers have been quick to take advantage of improvements in commercially available computer systems, electronic communications, and navigation equipment to conduct their operations more precisely and efficiently.

(578) SENATOR D'AMATO: Do you recommend any changes in our current interdiction efforts to make them more effective? Is assistance needed from other government agencies or entities?

ADMIRAL KIME: The issue is currently under review within the Administration. Presidential Review Directive 18 (PRD-18) is on-going, and the Coast Guard is participating in the process. It would be premature and speculative to respond to this question until the Administration review is completed.

VESSEL TRAFFIC SYSTEM (VTS)

(579) SENATOR D'AMATO: Please explain your plans to upgrade or expand the existing VTS at New York and at Puget Sound.

ADMIRAL KIME: The upgraded Vessel Traffic System (VTS) will replace the outdated and unsupportable existing equipment with newer, state of the market, radars, closed circuit television cameras and monitoring equipment. The Vessel Traffic Center (VTC) upgrades will also provide enhanced communications equipment to facilitate passing advisories and other information to the mariner. VTC data integration and display will provide the ability to identify, monitor, and correct potentially dangerous vessel traffic conditions. Although the primary purpose of VTS is to ensure safe passage of vessels through these waterways, the system will provide the ability to document incidents and traffic conditions.

The VTS expansion projects are intended to expand the area of coverage and correct for "blind spots" in the existing coverage. Nine sites have been selected for the New York Expansion project. These sites are:

- East River
  - Pier K, Brooklyn Navy Yard Development Corporation
  - Goodwill Industries Building, Astoria, NY
  - NY State Psychiatric Hospital, Wards Island, NY
  - Coca Cola Plant, Oak Point, NY
  - Fort Schuyler, NY, Navy and Marine Corps Training Center
- Arthur Kill
  - Naval Reserve Training Center, Perth Amboy, NJ
  - Public Service Utilities and Gas of NJ, Sewaren, NJ
  - Con Edison Arthur Kill Generator Plant, Travis SI, NY
  - Joseph Cory Warehouse, Elizabeth Port, NJ

Two sites have been selected for the Puget Sound Expansion project. These sites are Robinson Point and Ruston, WA.

A MARINE OIL SPILL RESPONSE SIMULATOR IN NEW YORK

(580) SENATOR D'AMATO: According to the Captain of the Port in New York, there are 37,000 petroleum barge movements every year in the Port of New York/New Jersey. Thus, most petroleum products must move

by water. Do you believe it would be beneficial to have a marine oil spill response simulator located in New York to meet the needs of marine and terminal training in regard to the Oil Pollution Act of 1990 (OPA 90)?

ADMIRAL KIME: Our preliminary analysis of this new technology indicates that an oil spill management simulator has the potential, with further development, to be a valuable training and exercise tool. However, such simulators must be properly configured to support specific requirements such as the training of higher level management skills and multi-agency coordination and decision-making skills to be effective and beneficial.

In April of this year, a Coast Guard contingent visited the Massachusetts Center for Marine Environmental Protection to view a demonstration of their recently installed oil spill management simulator. This simulator, installed by Norcontrol Ltd. of Norway, is representative of the many simulators currently available. It was the group's finding that the simulator, as currently configured, is not an effective tool to support the training of management, coordination and decision-making skills that are most important to the Coast Guard and the national response community. However, with modification, such simulators could be configured to meet these needs and could be a valuable training and exercise tool.

TANKER AND TERMINAL TRAINER

(581) SENATOR D'AMATO: The State Maritime Academy in New York has recently completed conversion of a 175 foot tanker to a tanker trainer and has installed terminal facilities on their pier. They are now conducting OPA '90 training for the industry in New York. What are your views on the potential benefits to the Coast Guard, the public as well as to the maritime industry in locating such a simulator at this site?

ADMIRAL KIME: I am encouraged by the positive steps taken by the New York Maritime Academy to enhance oil transportation and transfer procedures training. I am equally pleased that the training opportunities you describe have been made available to oil industry personnel in the greater New York harbor area.

Regarding the addition of a tanker terminal simulator at the Academy, I believe that a properly configured and featured simulator could be beneficial to the maritime community. There is a natural progression from the classroom setting, where theories of operations are learned, to a tanker terminal trainer, where these theories are tested in a safe and cost effective environment, where actual equipment operation is simulated. However, their are several reasons why it is premature to consider possible simulator sites. (1) Oil spill management simulators exist, but the Coast Guard isn't aware of one that is capable of providing the training needed to develop the higher management and multi-agency coordination/decision making skills of most concern to the Coast Guard. (2) There has been no analysis to determine the most cost effective employment of oil spill management simulators. For example, a mobile training team that travels to several ports might be more operationally and cost effective than numerous independent sites. (3) It isn't yet clear that oil spill management simulators should be publicly as opposed to privately funded.

QUESTION SUBMITTED BY SENATOR GORTON

VESSEL TRAFFIC SYSTEM (VTS) IN PUGET SOUND

(582) SENATOR GORTON: Funds have been provided in past appropriations bills for the upgrading and expansion of the U.S. Coast Guard's Vessel Traffic System in Puget Sound. Could you provide me with a detailed update on the project? What is the

estimated date of completion? Are any additional funds needed to complete the project?

ADMIRAL KIME: The Puget Sound Vessel Traffic Center (VTC) Upgrade project is on schedule to be completed during the first quarter of fiscal year 1994, with system certification being completed shortly thereafter.

The Puget Sound VTC Upgrade project is very complex and has several dependent and closely related sub-projects which must be completed in parallel. These sub-projects include; the Puget Sound communications upgrade, which will convert the current analog communication links to the Puget Sound radar sites to a combination of digital microwave and landline technology; the Puget Sound VTC renovation; and improved VHF-FM communications. All sub-projects are proceeding on schedule.

Prompt delivery of two key and very expensive components of the system, the radar processor and the audio routing switch, is essential to meeting the planned completion date. The audio routing switch is off-the-shelf technology, however, delays in the solicitation process, caused by reviews and protests, have removed all the "slack" in the schedule. Award for the routing switch contract is expected in the middle of the 4th quarter. The radar processor, while primarily off-the-shelf technology, requires adaptations to suit our particular needs. Work on the prototype is proceeding well.

All remote site preparations are on schedule. However, during recent excavation at the Point Wilson site, a military historical artifact was uncovered. As a result, the Washington State Historic Preservation Office imposed a 90 day suspension of work notice. While suspension of work at Point Wilson does not significantly impact the overall schedule, it demonstrates the problems which can hamper our progress and threaten the schedule.

The project to expand radar coverage to the Port of Tacoma was completed in May 92 and the Coast Guard is currently providing surveillance for that area. Work on the communications upgrade to interface with the VTC should be complete by September 93.

A contract has been awarded for modernization of the VTC. We are building the new VTC in "parallel" to the old VTC to ensure there is no break in service to the mariner. The old VTC will be converted for other uses at the completion of the upgrade. The upgraded VTC should be complete in August 1993.

Most of the software now under development for the VTC New York Upgrade project will also be used in the Puget Sound VTC. An additional $4.4 million was requested for FY94 to complete the VTC Upgrade project, which includes New York, Puget Sound and San Francisco. Additional funding was necessary due to increased labor costs for software development and installation, the need for parallel VTC facilities, and unanticipated increases in equipment costs such as the radar processor and video compression equipment. We do not anticipate a need for additional funds after FY 1994.

SUBCOMMITTEE RECESS

Senator LAUTENBERG. This hearing stands in recess. The subcommittee will meet again next Thursday, May 20, to discuss the issue of aviation research and development. It will be in room SD–138. Thank you very much, Admiral Kime, and your colleagues, for being with us this morning. The information transmitted was very helpful.

Admiral KIME. Thank you, sir.

[Whereupon, at 11:50 a.m., Thursday, May 13, the subcommittee was recessed, to reconvene at 10:05 a.m., Thursday, May 20.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1994

THURSDAY, MAY 20, 1993

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:05 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, D'Amato, and Domenici.

PANEL I

GENERAL ACCOUNTING OFFICE

STATEMENT OF ALLEN LI, ASSOCIATE DIRECTOR, TRANSPORTATION ISSUES

ACCOMPANIED BY:
MARY ANN KRUSLICKY, ASSISTANT DIRECTOR
MATT HAMPTON, EVALUATOR-IN-CHARGE

NONDEPARTMENTAL WITNESSES

STATEMENT OF NORMAN AUGUSTINE, CHIEF EXECUTIVE OFFICER, MARTIN MARIETTA CORP.

ACCOMPANIED BY JOHN ZUGSCHWERT, TEXTRON CORP.

OPENING REMARKS

Senator LAUTENBERG. Good morning. I call this subcommittee to order.

Welcome everybody. Today's hearing focuses on the research and engineering under FAA's jurisdiction.

With the U.S. economy still struggling in its deepest slump since the Great Depression, our attention must remain firmly focused on getting our economy moving and putting Americans back to work.

In consequence, it is imperative that we strengthen those sectors of our economy that make us the most competitive in the global marketplace. The U.S. aviation industry is one of those critical economic sectors.

We have the safest air traffic control system, the best and most experienced pilots, the most convenient system of routes and airports, and we dominate the world's aerospace manufacturing business.

Our balance of trade in the aviation industry in 1992 was $31 billion, with exports of aircraft, engines, and parts worth $37 billion. Our products are clearly desirable, and aviation remains a very big business domestically.

According to June 1990 figures, the total economic activity attributable to aviation in this country was nearly one-half of a trillion dollars. This accounted for the employment of some 8 million people.

However, according to a report of FAA's Research, Engineering and Development Advisory Committee, this important industry is at a critical crossroad. The report warrants that the United States is in serious risk of losing world leadership in aviation and suffering the loss in competitiveness, jobs, air travel convenience, that goes along with that leadership.

Today we're going to explore how we can heed that warning and maintain U.S. leadership in world aviation. The work of the FAA that's funded by this subcommittee is critical to maintaining and enhancing American competitiveness in this area.

I want to make sure that the FAA provides the leadership and direction for aviation research and development necessary to ensure the continued capacity, safety, and efficiency of the U.S. aviation system.

We need to ensure that existing FAA R&D money is well spent, and we must determine the proper level at which to fund such a program. If FAA is successful in its role and if the investment level is sufficient, the United States can retain its world leadership in aviation; leadership that is essential for protecting existing jobs in the domestic aeronautics and aviation industry, in addition to creating new ones.

Success on FAA's part also will ensure continued technological advances that increase system capacity and lead to a more efficient domestic airline industry; one that can compete locally, without loans and investments from foreign sources.

A financially healthy industry and a vigorous domestic market will ensure that opportunities for U.S. aircraft and engine manufacturers to excel continue to exist. They will be able to develop and build tomorrow's aircraft with avionics therefore ensuring global dominance in these crucial segments of the world economy.

During today's hearing, we are going to hear from a number of witnesses who have been involved with FAA's R&D program for many years. The General Accounting Office has reported on FAA's compliance with the Aviation Safety Research Act, including the need to conduct long-term research and establish realistic goals.

As planned, Mr. Augustine would have been with us today, though he returned from a long trip late last night and will not be able to attend.

Nevertheless, the FAA's Research Advisory Committee will give us the latest thinking on investments needed to retain U.S. leadership in aviation and the reaction of FAA in response to the 15 recommendations that panel made for charges to the R&D program.

The Office of Technology Assessment and Mitre Corp. will weigh in with their perspectives on FAA's priority setting and long-term outlook for aviation R&D.

And finally, we're going to hear from FAA management on the details underlining the $20 million increase they propose in their program for fiscal year 1994, which would represent an almost 9 percent funding growth year to year.

FAA may also want to respond to the constructive criticisms offered by prior witnesses.

At this time, we will look to our ranking member, my friend, Senator D'Amato.

STATEMENT OF SENATOR D'AMATO

Senator D'AMATO. Mr. Chairman, first of all, let me congratulate you for honing in on the importance of the aviation industry; how important it has been to our economy. Our balance of trade problems would deeply be exacerbated were it not for the vibrancy of this industry.

And, indeed, there are some very real questions as to how we will be able to continue to maintain, hopefully, our world leadership in this area.

PREPARED STATEMENT

So I commend you for calling this hearing. I ask that my full statement be placed in the record as if read in its entirety.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Mr. Chairman, I join you in welcoming the witnesses at our hearing on the Federal Aviation Administration's fiscal year 1994 budget request for its Research, Engineering and Development Program. Today, in addition to witnesses from the FAA, the General Accounting Office, and the Office of Technology Assessment, we will hear from Mitre Corporation, Martin Marietta Corporation, and Textron Corporation.

FAA has requested $250 million for R&D in fiscal year 1994. This would be a 8.7-percent increase (+$20 million) from current levels. FAA's overall budget request is for $9.2 billion, and includes: $4.6 billion for operations; $2.5 billion for Facilities and Equipment; and $1.9 billion for Airport Improvement Grants.

The R&D program covers research to improve the air traffic control system's safety, security, productivity, and capacity. The subcommittee particularly is interested in FAA's efforts to better utilize satellites for both navigation and communication needs, and to reduce runway incursions through better control of surface traffic.

I look forward to hearing the views of today's witnesses.

Thank you, Mr. Chairman.

SHIFT FROM DEFENSE-BASED ECONOMY

Senator D'AMATO. I have a Defense Appropriation hearing, as you do, to attend. I will follow what is done and look forward to working with you in assisting and making the opportunity for us to continue to be the world leaders in this area.

There are some very real questions. The questions of whyability—why we don't produce more planes anymore, manufacture them?

Can we just give up in that area? What should we be doing, because I think aviation is going to play an ever increasing role—and the civil aviation. So how do we attempt to keep those avenues that are strong and healthy and vibrant?

And can we do something to make it possible for us to rejuvenate areas that have been less than successful? So I thank the chairman.

Senator LAUTENBERG. Well, first of all, your full statement will be included in the record, as if read.

And second, to note your interest in aviation, you understand what happens as we shift from a defense-based economy to a more commercially based economy, and the impact it has in places like Long Island with Lockheed and other manufacturers who have been so much a part of the local economy that produce such wonderful products.

So we are taking this look to make sure that we continue to maintain the edge in one of the few industries where we still stand out. We do not want aviation to look like our domestic television business or our domestic photography business or any number of others where we once had the lead and it escaped us. We sat there and saw it happening and, frankly, did not do enough about it. So we're going to try to jump on this and do what we can.

Thank you for being here. Please—a note, in the other subcommittees which we both attend in which the hearing is going on simultaneously, we will try to stop by.

PREPARED STATEMENT

At this point, I would like to enter the opening statement of Senator Sasser into the record. Unfortunately, our colleague from Tennessee will be unable to join us today.

[The statement follows:]

STATEMENT OF SENATOR SASSER

Good morning. I join the Chairman and the other members of the Subcommittee in today's discussion of the FAA's proposed fiscal year 1994 Research and Development budget.

Air travel today is almost unrecognizable from that which occurred a scant ten years ago. The enormous increased demand on the Nation's airspace system necessitates technological advances that will allow the United States not merely to keep up with current needs, but rather, set the world standard for aviation safety and efficiency. Research and development is central to that effort.

Despite the many challenges that face the U.S. aviation industry, the United States air traffic control system remains the safest in the world. Planned modernization of the Nation's air traffic control system promises to secure that status well into the next century.

The Federal Aviation Administration has requested $250 million for its fiscal year 1994 Research and Development activities. This represents an 8.7-percent increase over last year's enacted level. In earlier testimony before this Subcommittee, Acting Administrator Del Balzo, cited "among the efforts in the R,E&D program are system capacity, satellite navigation, advanced air traffic control technology, aging aircraft, automation enhancements, airport security, and a strengthened focus on human factors."

Research and development investments are not made in a vacuum. Research and development activities, however critical, can only provide the visionary blueprint for tomorrow's national airspace system. Ultimately, it is up to the FAA to seize upon and take full advantage of technological opportunities. In particular, the importance of research and development to upgrading and modernizing the air traffic control system is realized through actual implementation. By all accounts, much work remains to be done in moving technological ideas to a real world application.

In Tennessee, and I'm sure in New Jersey, the proof has always been in the pudding. I'm anxious to hear how the FAA will utilize R&D initiatives to tap the full range of the Nation's airspace capabilities. Nothing short of developing and implementing advanced technologies can achieve that objective.

I thank the Chairman, and look forward to hearing the testimony.

STATEMENT OF SENATOR DOMENICI

Senator LAUTENBERG. With that, we welcome Senator Domenici from New Mexico. Senator, do you have an opening statement?

Senator DOMENICI. Mr. Chairman, I left the Defense Appropriations Subcommittee hearing to come here for just a couple of minutes.

First, I want to commend you for the hearing. I urge that we work together on a very serious issue. That issue relates to the President's investment package. If one looks at the President's investment package in his budget, part of which clearly would be an increased investment—about 9 percent increased investment—in FAA programs, one finds a difficult problem for the Appropriations Committee.

The problem we are going to have in appropriations is that only one-half of those investment dollars, just over $16 billion in investment spending for everything, only $8 billion fits in the budget.

Approximately $8 billion is outside of the budget. I think we, on the Appropriations Committee, have to try to figure that out from the standpoint of where is the most important investment, and see if we cannot get the allocation to our subcommittees adjusted properly.

The problem for the record is that Congress set a different budget than the President. We use the spending caps, Senator D'Amato—the limitations in law, as the discretionary spending cap.

The President in his "Vision" statement did not. Then when he produced the budget, he had to. So he put money outside of those caps, saying, "Maybe it will fit if you cut other things."

We do not know what else to cut to make room. I would not like to see all of the investment in this subcommittee, the new investment, go by the board, because there is no room, or it is taken up by investment elsewhere; that other committees get the investment, and investment in this critical, critical area does not get funding.

I do not know how to address this yet, but I think it is going to require that we work very hard with the chairman and understand the numbers. I pledge to work with you on it, and see what we can do.

Senator LAUTENBERG. That is the best news I have heard today: Everyone should be aware that a very seasoned, experienced U.S. Senator, like Senator Domenici, is also the ranking member of the Budget Committee, where the 602(b) allocations are going to be done.

I look forward to taking him at his word, as we work together to ensure that investments in FAA and Transportation try to get covered.

Thank you very much.

Senator DOMENICI. Would you, just at some point, put my question in the record regarding research?

Senator LAUTENBERG. Absolutely. I would be pleased to do that.

Senator DOMENICI. I know it will be answered in due course. Thank you.

Senator LAUTENBERG. OK. Thank you both for being here.

With that, we will hear, now, from Mr. Li, a frequent visitor of this committee, and Mr. John Zugschwert.

Mr. ZUGSCHWERT. Very good.

Senator LAUTENBERG. Zugschwert—representing the panel.

Mr. Li, you know the rules. We try to abide by a 5-minute presentation, but with this benevolent chairman, sometimes it can even go 5½. We try to keep it limited, however, to the 5-minute presentation.

Welcome.

STATEMENT OF ALLEN LI

Mr. LI. Thank you very much, Mr. Chairman. It is good to see you again. I will try to be brief and hit the high points of our statement.

Before I do that, please allow me to introduce my team. On my left is Mary Ann Kruslicky. She manages our work in aviation safety. And further to my left is Matt Hampton. He has followed FAA's RE&D program for some time.

As you noted, Mr. Chairman, today a sense of urgency faces the program. The financial health of the airline industry, growing international competition for aerospace products, and the administration's focus on R&D to enhance our competitive position and produce high-technology jobs, all of these issues are converging to make increasing demands on FAA's RE&D program.

Although RE&D alone cannot solve the financial troubles of the airline industry, it can provide critical technologies, such as satellite navigation. These will reduce delays and increase airspace capacity.

In summary, we found the following: First, FAA continues to make progress in responding to the Aviation Safety Research Act of 1988. FAA has expanded research in aircraft safety, simulation modeling, and human factors, as directed by the act. The Congress felt that these areas had been neglected in the past.

FAA is also taking steps to respond to our recommendation to track long-term research. According to FAA officials, about 20 percent of the fiscal year 1994 budget is allocated to long-term research. FAA expects to have procedures in fiscal year 1995 to track such research.

Although FAA has developed an RE&D plan, it has not included resource estimates in the plan, as mandated by the act. We recommended that inclusion last June. We still believe that such information is important.

FAA and industry officials estimate that FAA would need a significant funding increase, almost 100 percent, by fiscal year 1995—you will hear that shortly—to complete the plan's objectives.

Given the budget deficit and the problems that Senator Domenici spoke about, we believe that it is not prudent to develop plans, assuming such an increase will be forthcoming.

My second point: Last year we reported that the success of FAA's RE&D program rested on four interrelated factors. We believe these factors are still important.

The factors are: One, incorporating RE&D goals into other programs. Two, utilizing research conducted by other Federal agencies. Three, integrating various technologies to address existing and future capacity, security, and safety concerns. And finally, four, incorporating human factors in all research.

I would like to emphasize our point regarding RE&D goals. It is vital that FAA incorporate RE&D goals into other program areas, because RE&D relies heavily on these programs, such as the Capital Investment Program, which we spoke about 2 weeks ago. In its draft 1992 Capital Investment Plan, FAA has included the RE&D goal to increase capacity by at least 20 percent by the year 1999.

According to FAA officials, they expect to integrate RE&D goals into other programs over the next year.

Our third point, at the request of this subcommittee, we examined the cooperation between FAA and NASA research activities. Given the challenges facing the aviation community today and current budget realities, FAA must take full advantage of NASA's expertise and resources. Although the current partnership has led to some joint programs, we have identified several factors that inhibit greater cooperation.

These factors include: One, a bottoms-up approach, where, FAA and NASA researchers are now generally responsible for identifying joint projects.

Two, an institutional attitude, not-invented-here syndrome, that both agencies must overcome. And three, little participation by NASA in FAA's long-term planning efforts.

Finally, a word on explosive detection research. I know, Senator, that you are very interested in this area. This research effort, which will ultimately lead to the approval of new detection devices for airline use, illustrates the challenges that FAA faces to develop new technology for the aviation industry.

Our ongoing work has identified several issues that FAA must resolve to meet the high expectations of the Congress and the traveling public.

These issues include: One, technical problems. Some advanced x-ray devices are either too slow or have high false alarm rates. Two, cost of new devices. FAA has not determined how much the new devices will cost. Three, cost, weight, and durability of blast resistant containers. And four, the relationship between aircraft survivability and detection.

Resolution of these issues will require FAA to work closely with airports, airlines, and equipment manufacturers. However, Senator Lautenberg, the payoff will be very large. Deterrents to terrorist acts will be enhanced. And air traveler confidence will be restored.

In summary, on the positive side, FAA is taking some important steps to improve its RE&D program and respond to our prior recommendations. On the other hand, FAA has not included the requisite budget and staffing information in its plan. This information is critically important in today's budgetary environment, where FAA and the Congress will have to make difficult tradeoffs between diverse research areas.

Mr. Chairman, this concludes our statement. We would be pleased to respond to any questions after the next witness.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Li. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF ALLEN LI

Mr. Chairman and Members of the Subcommittee: We appreciate the opportunity to discuss the Federal Aviation Administration's (FAA) Research, Engineering, and Development (RE&D) Program. FAA is requesting $250 million for RE&D activities in fiscal year 1994. The RE&D Program plays an important role in ensuring the safety, security, and efficiency of the U.S. air transport system. Several systems developed and tested through the program, such as the Traffic Alert/Collision Avoidance System, are finding their way into day-to-day use.

Today, a sense of urgency faces the program. The financial health of the airline industry, growing international competition for aerospace products, and administration's focus on research and development to enhance our competitive position are converging to make increasing demands on FAA's RE&D Program. Although the program alone cannot solve the financial troubles of the airline industry, it can provide critical technologies, such as satellite and data link technologies, that can reduce delays and increase airspace capacity. Today, we will discuss FAA's progress in responding to the Aviation Safety Research Act of 1988, factors that will affect the success of the RE&D Program, the relationship between FAA and the National Aeronautics and Space Administration's (NASA) research programs, and four challenges facing FAA's security efforts. Our testimony is based on prior reports, recent testimony concerning FAA's security research program, and work this Subcommittee specifically requested. In summary:

—FAA continues to make progress in responding to the Aviation Safety Research Act of 1988. FAA has expanded research in areas directed by the act—such as simulation modeling of the air traffic control system. Similarly, FAA is taking steps to respond to a recommendation we made last year to track long-term research.[1] In addition, FAA has developed an RE&D Plan. However, FAA has not included resource estimates in the plan as mandated by the act. Such information is important because FAA and industry officials estimate that FAA would need a significant funding increase—a 100 percent by fiscal year 1995—to implement the plan. Given the budget deficit, it is not prudent to think that such increases will be forthcoming. Therefore, FAA will have to make careful tradeoffs among diverse projects to ensure that important research is funded and completed in a timely manner. This is particularly important in view of the administration's emphasis on enhancing global competitiveness.

—In June 1992, we also reported that the success of FAA's RE&D Program rested on several interrelated factors. We believe that these factors are still important, and careful attention to them is still needed. The factors include FAA's success in (1) incorporating RE&D goals into other programs, such as the Capital Investment Plan, to modernize the air traffic control system; (2) utilizing research conducted by other federal agencies; (3) integrating various technologies to address existing and future capacity, security, and safety concerns; and (4) incorporating human factors into all research. FAA has started to incorporate goals into other programs, but it faces system integration challenges and has yet to determine how to fully utilize other federal research efforts.

—At the request of this Subcommittee, we initiated a limited examination of the cooperation between FAA and NASA research activities. Given the challenges facing the aviation community today and current budget realities, FAA must take full advantage of NASA's expertise and resources. NASA makes a substantial investment, about $1 billion, in aeronautical research upon which FAA could draw to stretch its research funds to achieve greater returns on its research investments. NASA can complement FAA's RE&D Program by helping to provide the technological building blocks for future aviation systems. Such a partnership would be particularly useful in the development and deployment of satellite technology that could help maintain U.S. leadership in aviation. The current partnership has led to some joint programs, but we have identified several factors that inhibit greater cooperation between the two agencies. For example, NASA is generally excluded from participating in FAA's planning for future systems. Closer cooperation could ensure that the two agencies' resources are fully utilized and help speed the development of new technologies.

—At recent hearings, we identified several security research issues that FAA must resolve to meet the high expectations of the Congress and the traveling public.[2] These issues include (1) technical problems, such as high false alarm rates; (2) the cost of new devices; (3) the cost, weight, and durability of blast-resistant containers carried in aircraft cargo bays; and (4) the relationship between aircraft survivability and detection.

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[1] *Aviation Research: FAA Could Enhance Its Program to Meet Current and Future Challenges* (GAO/RCED–92–180, June 3, 1992.)

BACKGROUND

FAA conducts a wide range of research to ensure the safety, security, and efficiency of the U.S. aviation system. The results of FAA's research programs include prototypes of systems, new procedures, rules, regulations, and certification criteria. Most, if not all, of FAA's research focuses on refining existing technology and equipment. To assist FAA in meeting its long-term challenges, the Congress enacted the Aviation Safety Research Act of 1988. The act directs FAA to (1) submit to the Congress an annual aviation research plan with detailed cost, schedule, and staffing data for each project and a report of accomplishments for the preceding year; (2) undertake research on aircraft structures, fire safety, human factors, aeromedical research, and computer simulation models of the air traffic control system; and (3) establish a research advisory committee. In addition, the act required FAA to allocate not less than 15 percent of its fiscal year 1989 and 1990 budget to long-term research.[3]

In response to the act, FAA is spending more RE&D funds on aircraft structures, simulation modeling, and human factors. (App. I compares funding levels for fiscal years 1988—before the passage of the Aviation Safety Research Act—and 1994 by major research area.) Nevertheless, FAA faces many long-term challenges that will require sustained research over the next few years. These challenges include:

—Alleviating capacity and congestion problems. In 1992 alone, over 280,000 flights experienced delays in excess of 15 minutes.

—Developing systems that can detect a wide range of explosives with a high degree of reliability at an affordable cost.

—Developing tools to detect cracks and corrosion in the nation's aging fleet without grounding aircraft for extended periods of time.

—Ensuring that the next generation of air traffic control systems, which rely heavily on automation, are engineered so that controllers and pilots can effectively operate and work with the systems.

FAA HAS MADE PROGRESS IN RESPONDING TO THE AVIATION SAFETY RESEARCH ACT

In response to the act, FAA has expanded research in aircraft structures, human factors, and simulation modeling; established an advisory committee; and developed an RE&D Plan. The RE&D Plan enjoys industry support and provides information on, among other things, aircraft safety, security, and weather research. However, FAA has not included resource estimates—either staff or dollars—for research efforts as required by the act and as we recommended.[4] Such information is important for several reasons.

First, according to FAA and industry officials, FAA would need $500 million annually—a 100-percent increase over current funding levels—by fiscal year 1995 to implement the plan. Second, some research areas, especially human factors and airport technology, could cost significantly more in the next several years. Third, FAA will be making difficult decisions regarding allocation of scarce RE&D resources to many competing areas in the next decade, such as aircraft safety and air traffic control. Without cost and staffing information, neither the Congress nor FAA can adequately oversee decisions to ensure that resources are being used most effectively and that trade-offs have been made properly.

FAA is Instituting New Controls to Set Priorities and Funding Levels for Its Research Activities

FAA is taking steps to help set priorities and establish funding levels. For the past several years, FAA has been struggling to define a process to set research priorities, determine the correct balance of long- and short-term research, and establish funding levels for its research program. In March 1993, FAA issued a new acquisition policy that, among other things, requires priorities to be based on an analysis of mission need statements beginning in fiscal year 1995.[5]

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[2] *FAA Budget: Important Challenges Affecting Aviation Safety, Capacity, and Efficiency* (GAO/T–RCED–93–33, Apr. 26, 1993).

[3] The act defined a long-term research project as a discrete project that was unlikely to result in a final rulemaking within 5 years or in initial installation of operational equipment within 10 years after the project began.

[4] *Aviation Research: FAA Could Enhance Its Program to Meet Current and Future Challenges* (GAO/RCED–92–180, June 3, 1992).

These statements are intended to justify the need for an investment, clearly state the investment's purpose, relate the project to FAA's overall needs, and highlight the risks involved. Although not guaranteeing a successful acquisition, mission need statements are intended to provide a sound basis for investment decisions. Earlier this year, we reported on the importance of mission need statements and the steps that FAA needs to take in the management of the Capital Investment Program.[6] For the RE&D Program, FAA officials are optimistic that mission need statements will help them identify, fund, and deploy promising technologies.

Efforts to Track Long-Term Research are Underway

For many years, the Congress has been concerned that FAA's RE&D Program is not sufficiently future-oriented. According to FAA officials, about 20 percent of the fiscal year 1994 budget is allocated to long-term or future-oriented research. Such research is important because it can identify potential safety problems before they result in catastrophic accidents or incidents and enhance the industry's competitiveness. We previously reported that many projects FAA had classified as long-term were actually short-term or a combination of short- and long-term efforts. We also found that FAA does not track information on the amount of long-term research conducted. Consequently, budget and planning documents do not indicate the level of funds for short- or long-term efforts. Tracking such research would allow FAA to make judgments on the overall direction of the RE&D program, identify trends, and make the necessary adjustments. Therefore, we recommended that FAA develop a mechanism to track long-term research. FAA is exploring ways, including modifying the RE&D information system, to implement this recommendation and expects to have procedures in fiscal year 1995.

FAA's RE&D Efforts are Difficult to Estimate

FAA's total RE&D efforts are difficult to estimate because some research is funded from other sources, including other federal agencies and the facilities and equipment (F&E) account for modernizing the air traffic control system. For example, several important RE&D projects that utilize emerging technologies—such as Terminal Air Traffic Control Automation—receive both RE&D and F&E funds.[7] We previously reported that FAA needed to link its process for acquiring major projects with its budget to enhance project management and reduce the potential for cost growth and schedule delays.[8]

On the basis of our recommendations, FAA now delineates F&E funds for engineering, development, test, and evaluation in its budget. FAA is requesting about $549 million in its fiscal year 1994 F&E budget to research and test specific problems associated with, for example, the Advanced Automation System and Voice Switching and Control System. Therefore, if F&E funds are considered, FAA expects to spend almost $800 million on research, engineering, and test-related activities in fiscal year 1994.

SEVERAL INTERRELATED FACTORS WILL AFFECT THE SUCCESS OF FAA'S RE&D PROGRAM

In June 1992, we reported that several interrelated factors will affect FAA's ability to meet current and future challenges. These factors are (1) incorporating RE&D goals into other FAA programs; (2) utilizing research conducted by other federal agencies; (3) integrating various technologies to address existing capacity, safety, and security concerns; and (4) incorporating human factors into all research. These factors are important today and will ultimately shape FAA's ability to meet its RE&D goals.

FAA's RE&D Plan includes nine ambitious but, in FAA's view, attainable goals. For example, the plan shows that FAA expects to increase airspace and airport capacity by at least 20 percent in 1999 and an additional 20 percent by 2005 and reduce runway incursions by 80 percent by the year 2000. (App. II lists FAA's RE&D

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[5] Office of Management and Budget Circular A–109 establishes guidelines for top-level agency management to review acquisitions at four key decision points. Approval of a mission need is the first decision point.

[6] *Air Traffic Control: Justification for Capital Investments Need Strengthening* (GAO/RCED–93–55, Jan. 14, 1993).

[7] For additional information on emerging technologies, see *Air Traffic Control: Status of FAA's Modernization Program* (GAO/RCED–93–121FS, Apr. 16, 1993).

[8] *Aviation Acquisition: Further Changes Needed in FAA's Management and Budgeting Practices* (GAO/RCED–91–159, July 29, 1991).

goals.) Goals are important elements of a good plan because they set expectations and establish a basis to measure performance.

In our opinion, four interrelated and cross-cutting factors will shape FAA's ability to meet the safety, security, and capacity demands of the next decade and beyond. First, the RE&D goals must be incorporated into other program areas. This is important because the RE&D program must rely heavily on other programs, such as the Capital Investment Program. We recommended that FAA integrate RE&D goals into other programs or develop goals that are directly achievable by the RE&D Program. In response, FAA has included one goal (increase capacity by at least 20 percent in 1999) in the draft 1992 Capital Investment Plan. However, FAA still needs to integrate RE&D goals into other agency-wide efforts, such as the need to significantly reduce the number of accidents on crowded runways. FAA officials told us that they plan to integrate RE&D goals into other programs within the next year.

Second, FAA must utilize research conducted by other federal agencies and private organizations. As discussed later, FAA can make better use of NASA to bring about major improvements in safety and capacity. In addition, this fall FAA expects to complete an assessment begun late last year on increasing its use of Department of Defense (DOD) laboratories. Although the extent and type of technologies that could be transferred is unknown, DOD and FAA officials believe that they can contribute to FAA's research efforts. Key areas that might benefit FAA include phased array radar technology, sensor fusion, and software testing. The National Aviation Research and Competitiveness Act of 1993 (H.R. 1229) has been introduced in the House and would require the establishment of a joint program for conducting research on aviation related-technologies.

Third, in such areas as air traffic control and security, an important relationship exists between developing technologies and how the technologies work together (system engineering and integration). For example, in the air traffic control area FAA must ensure the integration of ground-based systems and satellites for communications, navigation, and surveillance functions. Also, as discussed later, FAA must ensure that future security devices can successfully blend several technologies to detect a wide range of explosives. In the past, integration problems and issues have contributed to cost increases. For example, costs increased for the Terminal Doppler Weather Radar System because FAA did not fully consider the need to integrate that system with the Low-Level Windshear Alert System.

Finally, for more than 30 years, human error has contributed to over 65 percent of aviation accidents. As a result, FAA has developed a multi-year plan with NASA that focuses on many aspects of human factors in aviation. By December 1993, FAA expects to complete an evaluation of the plan's priorities and determine the correct balance of short- and long-term human factors research. This work will help identify potential safety issues and maximize efficiency in air traffic control and the operation and maintenance of aircraft.

FAA AND NASA COOPERATION

At the request of this Subcommittee, we initiated a limited examination of the cooperation between FAA and NASA in conducting research activities. With research needs far exceeding what can reasonably be funded, it is paramount that FAA closely cooperate with other federal agencies. NASA makes a substantial investment in aeronautical research upon which FAA could leverage its research dollar and potentially achieve greater research investment returns. For fiscal year 1994, NASA is planning to spend over $1 billion for aeronautics research. (App. III provides information on NASA's fiscal year 1994 R&D investments.) Although some joint projects have had positive results in several areas, NASA research activities can further benefit FAA.

NASA and FAA Work Through Cooperative Agreements

FAA and NASA work closely on a wide range of projects, including aging aircraft, noise, and human factors research through cooperative agreements. According to FAA and NASA officials, aviation research conducted by NASA is generally more long-term in nature. In 1993, FAA had seven major efforts with NASA, totalling almost $50 million. NASA contributed almost $26 million. The joint efforts include projects to (1) develop technical data and automation aids for overcoming air traffic delays and avoiding collisions; (2) investigate methods to protect passengers and crew during accidents; and (3) explore new aircraft technologies and communication, navigation, and surveillance systems for advanced air traffic control systems. (App. IV shows FAA and NASA funding for on-going joint programs.) However, the $26 million does not take into account the resources and research conducted outside of formal joint agreements, such as human factors and aircraft safety research.

Obstacles to Effective Cooperation/Partnership

FAA and NASA have established a formal coordinating committee and undertaken many cooperative efforts. However, the work we conducted for this subcommittee shows that both agencies need to develop a much closer partnership if FAA is to take full advantage of NASA's expertise and resources. Moreover, top FAA officials told us that they are not sure whether the two agencies are cooperating on all of the research that can benefit FAA. FAA and NASA officials identified several factors that impact the effectiveness of their partnership:

—First, the current process for formalizing cooperative agreements between the two agencies relies heavily on a "bottoms-up" approach for identifying joint research projects. For example, the NASA researcher and FAA program manager generally are responsible for identifying joint projects and sharing information. Although such discussions should be encouraged, this approach does not ensure that both agencies' resources are fully utilized. A "top down" approach would help focus and provide more direction for the long-term aviation research efforts of both agencies.

—Second, some FAA and NASA officials believe that the "not-invented-here" syndrome has limited the cooperation between the two agencies. Although both agencies recognize that this attitude has improved over the past several years, it remains an underlying current in the FAA/NASA relationship.

—Third, NASA is generally excluded from participating in FAA's planning for future systems, and some FAA officials told us that they view NASA as only one of many contractors. FAA officials believe that they are in the best position to decide which research contractor or laboratory is best suited for their needs. Regardless of which contractor FAA selects, NASA officials told us that the lack of participation inhibits their ability to guide research to meet future aviation needs.

The Terminal Air Traffic Control Automation (TATCA) program illustrates an opportunity that FAA almost lost because of poor coordination. According to FAA and NASA officials, in the early 1980s, NASA suggested that both agencies develop TATCA—a software enhancement to assist air traffic controllers in routing aircraft more efficiently. Although FAA decided not to fund the project, NASA did. FAA now anticipates that TATCA will provide significant capacity improvements. At the end of fiscal year 1992, major components of the TATCA program were delivered to air traffic control facilities for testing.

NASA Can Play a Key Role In Meeting Future Challenges

As discussed above, NASA plays an important role in FAA's research efforts and may be able to play a much larger role in the future. For example, NASA officials told us that they could contribute more research resources to develop satellite technology for the next generation air traffic control system. In addition, FAA's Advisory Committee for RE&D noted that considerable opportunity exists for FAA to harvest prior achievements from the technological investments made by NASA, particularly in the space arena. Moreover, a recent examination by the National Research Council found that NASA could play a key role in helping FAA to significantly increase the capacity of the nation's air traffic control system.[9] To do so, the Council recommended, in part, that FAA, NASA, and industry work together to expedite the development of satellite communications.

FAA has not actively sought NASA's input to help shape the vision of the future national airspace system. Although FAA has developed RE&D Plans, it has not yet developed a transition plan to integrate satellite technology into the future air traffic control system. FAA expects to have a transition plan by December 1994. Since the two agencies coordinate only after a specific problem has been identified, NASA is not involved with FAA's planning effort. Without closer cooperation, FAA will not be able to fully utilize NASA's substantial technology base. FAA and NASA are drafting a satellite navigation memorandum of understanding, but until FAA completes its transition plan, neither FAA nor NASA will be able to maximize the government's investment in aviation research.

SECURITY RE&D PROGRAM FACES SEVERAL CHALLENGES

After the Pan Am Flight 103 tragedy, the Congress directed FAA to, among other things, accelerate its research efforts for bomb detection, and explore ways to enhance aircraft survivability. The Congress' goal was to have new detection systems in place by November 1993. Accordingly, FAA's RE&D funding for security has grown from $16.9 million in fiscal year 1990 to about $36 million in fiscal year

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[9] *Aeronautical Technologies for the Twenty-First Century,* National Research Council (1992).

1993—a 113-percent increase. FAA has requested $36 million for security research for fiscal year 1994. FAA expects to obligate all its fiscal year 1993 funds and has 40 projects to research detection devices.

At the request of the Subcommittee on Transportation, House Committee on Appropriations, we are assessing FAA's security research program, particularly the development of new explosive detection devices and methods to improve aircraft blast resistance (aircraft hardening). The following four issues illustrate the challenges that FAA should address to meet the high expectations of the Congress and the traveling public. These issues also illustrate the challenges FAA faces in developing new technology for the aviation industry.

First, technical problems will prevent FAA from having new detection equipment—the centerpiece of its security research—at airports in the near future. For example, some advanced x-ray devices show promise in detecting explosives but are either too slow or have high false alarm rates. Also, FAA plans to spend about 23 percent of its security RE&D budget on vapor technology but has not determined how to ensure that the technology can reliably detect small amounts of explosives. Such devices "sniff" baggage and people for explosives and must discriminate between very small traces of explosives and much larger quantities of other materials. FAA expects to test several devices at selected airports later this year.

Second, FAA has not determined how much the new devices will cost the airlines. Industry estimates that the cost of a single device could range from $250,000 to well over a $1 million. Because no single device can meet the existing threat, airlines will have to use devices in combination to detect a small amount of explosives, which could have a significant financial impact on the industry. According to FAA officials, they will conduct an economic analysis after they approve devices for airlines' use.

Third, industry has raised issues related to the cost, weight, and durability of blast-resistant luggage containers carried in aircraft cargo bays. According to an FAA official, the containers that FAA is testing would add an average of about 3,200 pounds to an aircraft's weight, thereby increasing fuel use and operating costs. Also, because of their size, the new containers can be used on about 25 percent of the fleet—wide-body aircraft that typically fly international routes. According to these officials, FAA is working with the industry to resolve these issues.

Finally, FAA needs to determine the relationship between detection and aircraft survivability. Last year the Congress directed FAA to conduct a detailed analysis of the trade-offs between survivability and detection. Defining this relationship is important because if FAA finds that an aircraft could be made to withstand an explosion, then devices would not have to be as sensitive as FAA currently requires. Conversely, if an aircraft cannot be made to withstand an explosion, then the devices will have to be as or more sensitive. FAA expects to complete its analysis in 1995.

CONCLUSIONS

FAA is taking some important steps to improve its RE&D Program and respond to our prior recommendations. FAA's plan to use mission need statements in fiscal year 1995 to prioritize research efforts and guide funding decisions is a positive step. However, FAA has not implemented our recommendation to include the requisite budget and staffing information in the RE&D Plan. This information is critically important in today's budgetary environment where FAA will have to make difficult trade-offs between diverse research areas.

The success of FAA's RE&D Program in meeting current and future challenges rests on integrating RE&D goals into other program areas, leveraging research conducted by other federal agencies, integrating various technologies to meet specific safety and capacity problems, and incorporating human factors into all research. As our limited work on the relationship between FAA and NASA research activities shows, the solution to some of today's most pressing problems may call for greater cooperation between the two agencies.

Mr. Chairman, this concludes our statement. We would be pleased to respond to questions at this time.

APPENDIX I

RESEARCH UNDERWAY MANDATED BY THE AVIATION SAFETY RESEARCH ACT, FISCAL YEARS 1988 AND 1994

[Dollars in thousands]

Mandated area	1988[1]	1994[2]
Human factors and medicine	$6,186	$27,256
Simulation modeling	764	11,814
Aircraft structures[3]	1,680	26,767
Fire safety	3,544	5,697
Total	12,174	71,534

[1] Obligations.

[2] Requested funding for fiscal year 1994.

[3] Includes aging aircraft research.

Source: GAO analysis of FAA data.

APPENDIX II

FAA's RE&D Goals

Reduce civil aviation fatality rate by all causes by at least 10 percent by 1999.

Develop a fire-resistant aircraft cabin.

Increase airspace and airport capacity by at least 20 percent by 2000 and an additional 20 percent by 2005, achieving commensurate reductions in delay.

Reduce runway incursions by 80 percent by the year 2000.

Reduce the number of accidents and incidents attributable to controller, flight crew, and maintenance crew human error by 50 percent by the year 2000.

Reduce the number of accidents and incidents attributable to weather by 20 percent in 1997.

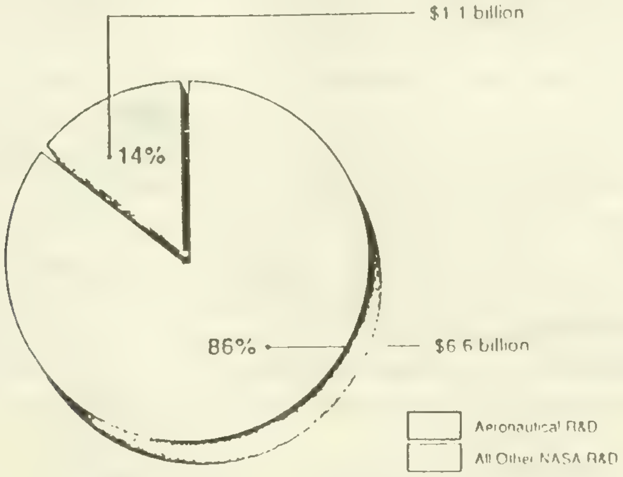
Eliminate aircraft fires and aging aircraft concerns as significant safety issues by 1996.

Provide nonprecision approach capability or better at 95 percent of all U.S. public airports by 1996.

Anticipate new threats and implement new security philosophies, technologies, and systems that operate effectively with minimal interference to passengers and carriers.

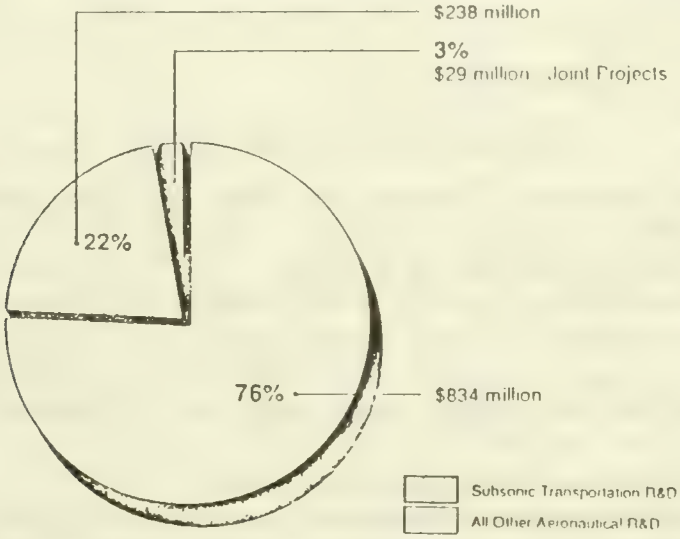
APPENDIX III

Figure 1: NASA Estimated R&D Funding for Fiscal Year 1994



Source: GAO Analysis of NASA data.

Figure 2: NASA's Estimated Aeronautics R&D Funding for Fiscal Year 1994



Source: GAO Analysis of NASA data.

APPENDIX IV

JOINT FAA/NASA RESEARCH AND DEVELOPMENT PROJECT FUNDING LEVEL, FISCAL YEARS 1992, 1993, AND 1994

[Dollars in millions]

Program area	1992	1993	1994[1]
Capacity air traffic management technology:			
FAA	$1.0	$1.0	$1.0
NASA	1.7	1.7	1.7
Communications, navigation, and surveillance:			
FAA	0.1	0.2	0.3

JOINT FAA/NASA RESEARCH AND DEVELOPMENT PROJECT FUNDING LEVEL, FISCAL YEARS 1992, 1993, AND 1994—Continued

[Dollars in millions]

Program area	1992	1993	1994[1]
NASA	0.2	0.2	0.2
Weather:			
FAA	1.3	1.1	0.8
NASA	1.4	1.4	1.0
Airport technology:			
FAA	0.1	0.1	....
NASA	0.1	0.1	....
Aircraft safety technology:			
FAA	13.0	13.0	13.0
NASA	4.0	6.8	7.7
Human factors and aviation medicine:			
FAA	5.9	6.7	6.9
NASA	10.6	5.4	6.5
Environment and energy:			
FAA	1.0	1.2	1.5
NASA	9.0	10.3	11.4
Total:			
FAA	22.4	23.3	23.5
NASA	27.0	25.9	28.5
Joint	49.4	49.2	52.0

[1] Requested for fiscal year 1994.

Source: GAO Analysis of FAA and NASA data.

ACHIEVING FAA'S R&D GOALS

Senator LAUTENBERG. We are told that Mr. Augustine is on his way. Is that so?

Mr. ZUGSCHWERT. Yes; at 11 o'clock.

Senator LAUTENBERG. At 11. Well, I think what we will do is ask some questions of Mr. Li. And if you can stay around and join Mr. Augustine, why, we will put him in there. I hope his problem was not with aviation in getting here and all of that kind of thing. [Laughter.]

It would certainly dramatize his problem.

Mr. Li, earlier reports and testimony noted that FAA's—OK. GAO's earlier reports and testimony noted that FAA's R&D goals are so ambitious that the agency's research program, alone, cannot achieve them. You make reference to that.

Mr. LI. Yes, sir.

Senator LAUTENBERG. You recommend, and FAA agrees, that some goals should be folded into other agency efforts, such as air traffic control modernization. However, if we are to measure the performance of the research effort alone, for the purpose of justifying budget decisions, wouldn't FAA need measurable goals that are focused on one of the 10 specific research activities, whether aircraft safety, human factors, and others? What would we have to do to make certain that we have the goal measurements that are required?

Mr. LI. Senator, I believe that we are on the road to developing those types of goals. You are correct. We have made a recommendation in the past that they try to tie their research goals with their capital investment plan.

One of the areas that they have done that is in the area of capacity. That is very important, to be able to improve the capacity of the whole airspace and airport system.

In direct response to your question, sir, I do believe that with the charts that they currently have in their RE&D plan, they have identified certain intermediate products, at which time they will produce certain activities.

If we were able to look and have FAA provide on a snapshot basis, perhaps, in the course of the appropriations process to provide that progress report, "Today is 1994. Here were the activities that we had in the plan," they would be reporting their progress against those benchmarks. So I do think that that is possible.

Senator LAUTENBERG. That is a chronic problem with research programs. Ostensibly, as you do research, you discover things along the way that will either aid or impede reaching the destination or the objective that you want.

It is very, very hard to do. I was in the computer industry before it came here. And invariably, the toughest part of the program was to establish realistic targets and measure how close or how appropriate the benchmarks are that you have let be your guide, and how close you are to realizing them. It is very difficult, but the effort has to be made, otherwise there is an opportunity to fritter away funds that you do not discover until too late.

Mr. LI. Mr. Chairman, if I can just add to that point. The challenge in establishing milestones in RE&D has to recognize exactly what you are saying, that RE&D, in essence, is an exploratory activity.

And there were times that we were speaking 2 weeks ago about the F&E program, where they are missing certain milestones. When you develop equipment based upon specifications, you are not pushing the state of the art at that point in time, although in software development that is true.

In RE&D I do not think that we want to be in a situation where we will be closing our minds to the point where we have that innovative aspect that we have to deal with.

Senator LAUTENBERG. Yes; you cannot be so rigid and——

Mr. LI. That is correct.

Senator LAUTENBERG. [continuing]. Really do as you described, the exploration that is necessary for every project in FAA's RE&D plan. The plan describes outputs in the form of accomplishments and products from prior years and for future years.

Are these outputs enough, in your judgment, to determine whether or not the projects are on track?

Mr. LI. Yes; I do. I would like Matt Hampton to answer a little bit further.

Mr. HAMPTON. Over the past several years, we have been monitoring FAA's program. It is very difficult to track progress, as you mentioned, by reading the budget documents and the RE&D plan.

I think by noting specific accomplishments, outputs, and discussing intermediate products, FAA could focus on where it is with its goals.

I do not think that it would be a difficult task for FAA to do so, because outputs are currently buried in their plan. This subcommittee should ask FAA to break out that information for you. It can be done.

Senator LAUTENBERG. One of the things that I would be curious about is whether or not there are the kind of reviews taking place that consider the goals and the places that one ought to be at a given time.

Too much time elapses before there is recognition that there is a major problem or a major opportunity, as the case may be. And regular review is essential, I think, in development programs.

Now, is that provided for in FAA's structure, as you know it?

Mr. LI. At the present time, they are moving in that direction. I hate to keep going back to 2 weeks ago, but 2 weeks ago when you and I spoke about the mission need statements and what they are doing in the F&E program in trying to justify each one of the projects, they are also transferring that discipline into the RE&D program. We are not there yet for all of the projects, but my understanding is that they are going to be using that.

And, Mr. Chairman, yes; when they apply that sort of discipline, their top management will be reviewing what is going on in the program, whether or not some of the goals that they had set forth are still reachable, or whether or not it is time to not go forward with that specific technology.

Ms. KRUSLICKY. If I may just add to what Mr. Li said, Mr. Chairman, we are doing work in the security research program at FAA. And what we are finding is that they are having periodic meetings—it is either every 4 or every 6 months—to take a hard look at the program to see if it is accomplishing its goals and objectives. So, just to add to what Allen said, I think FAA is moving in that direction. And we have seen some evidence of that in the security program.

Senator LAUTENBERG. Yes; there are two things that come to mind when we discuss this. First, is there a chronic problem at FAA in terms of evaluating its progress, whether it is in the facilities and equipment area in other places. As I noted before, there are all kinds of programs underway.

I just wonder whether there is a chronic condition there that says that we do not look at these things until we get to a point where we say, "Oh, my God, where has all the money gone?" to use an expression.

And it would be helpful to me for any comments that you have regarding a regular condition there that says to us that it is just not being done the way it ought to be.

And I am not—by raising the question, making a criticism, but certainly one would be foolish not to recognize that it is a complicated piece of business that FAA administers.

On the other hand, we cannot afford to have the funding for these programs consumed before we have made the progress that we would like to. I am not sure whether every 4 or 6 months is adequate. I would have to leave it to the people that we have entrusted with the job, but I, for one, would not leave it forever.

I can tell you that. I come from management. And I know you have to stay on top of things, no matter how difficult it is to assess them.

Although, FAA has a research activity called innovative cooperative research. The funding request for that activity was cut in half for fiscal year 1994. Is this the only mechanism that FAA uses to fund joint research?

Mr. LI. Mary Ann, can you answer it?

[No response.]

Mr. HAMPTON. No, sir; we took an indepth review of FAA and NASA programs. And that line item in FAA's RE&D budget does not accurately reflect that. As a matter of fact, if you look at all of FAA's coordinated efforts with NASA, the total effort, if you count FAA and NASA together, is about $50 million in fiscal year 1993. So that line item in the budget called cooperative research does not tell you the——

Senator LAUTENBERG. The whole story.

Mr. HAMPTON. Exactly, sir.

Senator LAUTENBERG. Because I think it is important to note that that is not a question. That does not suggest that we cannot manage it properly or that we are not willing to invest in the funding for joint research.

GAO recently reported that FAA should study how to best develop some of the emerging technologies, one of which is satellite navigation, including all of the procedures and standards that would accompany changing from land-based to space-based navigation.

Were you at the hearing when I was so fascinated by——

Mr. LI. Yes, sir. Absolutely.

Senator LAUTENBERG. Because of the large projected savings for the industry and for FAA that would accrue with the full satellite navigation surveillance, should FAA be moving out at a faster pace in developing this capacity or is that, perhaps, asking too much?

Mr. LI. Mr. Chairman, at the present time, FAA is being pushed in many directions on this particular issue. They are being pushed by the airlines, because they believe that it will be more cost effective for them to be depending on this satellite type of navigation process.

They are being pushed by the international community. We spoke—2 weeks ago, we spoke about MLS. Well, by 1995, FAA will have to make a decision on whether or not some of the higher category precision landings can be handled through GPS, which is this technology of which we are speaking. And so they are being pushed there.

They are being pushed by the airlines. They are being pushed by the international community.

They have a lot of other challenges, Mr. Chairman. DOD is a big player in this, because this is their satellite system. FAA and the user community will have to be working with DOD to make sure that they have consistent access to this facility.

Senator LAUTENBERG. Are you saying that the pace that they are moving at, in connection with satellite technology, is a satisfactory one? The opportunity could be so dramatic, if successful, that it might call for a slowing or an abandonment of some existing investments. And of course, there is always that cost of changing technology.

You certainly see it in the computer field. I mean, from size and throughput and yesterday's report about a 64-bit PC by one of the companies in the—volume of storage. Almost overnight, that renders lots of things obsolete.

Are we moving along rapidly enough to try to make determinations about whether or not we should continue to invest in the——

Mr. LI. I did not want my answer to give you the impression that I was satisfied with the pace. Indeed, I believe that one of the key points that we are making in our statement is that NASA's participation with FAA can be beneficial. And I believe that could help them, perhaps, pick up the pace.

I also believe that it is a bigger picture than FAA. I know that this subcommittee handles the entire Transportation Department. Other users—and I know you have been very interested in IVHS, for example—will be dependent upon the use of GPS. I think it is a big issue. I think the entire department should be enlisted to work on this major matter.

Senator LAUTENBERG. That is where so much value can be derived from the joint efforts——

Mr. LI. Yes, sir.

Senator LAUTENBERG [continuing]. Because I would guess that FAA is a considerably smaller player, compared to DOD and NASA and some of the others.

To make sure that this issue does not fall through the cracks, I wonder if we could get you to track this issue of NASA and FAA working jointly, particularly in the area of satellite navigation, and be prepared to brief my staff in the future. I think it is important.

Mr. LI. Yes, sir; we certainly will.

Senator LAUTENBERG. All right. It would be very helpful to me if we knew that all of the efforts, at least, were being coordinated, integrated in some way; at least, discussed by those responsible for the programs.

As we are going to hear in a few minutes, the Augustine panel is recommending that FAA's RE&D budget be increased to around $500 million a year.

Now, you made reference to increasing budget in your testimony. You note that FAA's current request is already about $800 million. Are we overlapping someplace here or are we not——

Mr. LI. No; Mr. Chairman——

Senator LAUTENBERG [continuing]. Fully understanding it?

Mr. LI. Yes; Mr. Chairman, in the statement, the point that we were trying to make was the following: About 2 years ago, FAA was identifying, in two separate accounts, the RE&D moneys and the F&E moneys, but within the F&E account, they were still doing development work, which really is an activity that belongs in RE&D.

We are not saying that the RE&D program is underfunded or overfunded. All we are saying is almost like a truth in lending law. This is, if you were to look at all of the research, engineering, development, and test activities in FAA, they all amount to $800 million.

Senator LAUTENBERG. In the area of coordination between FAA and NASA, you talked about the not-invented-here syndrome. Is there anything that you would like to expand on there? That is not an uncommon condition, not just in government, but all over the——

Mr. LI. You are certainly correct, Mr. Chairman. When you have two separate organizations that deal in pretty much an overlapping area in aviation and the aviation system and aeronautics, it is not uncommon to find the sorts of turf issues that arise.

FAA and NASA have been working together to ensure that there will be less and less of these turf issues, but just from a professional standpoint, I believe it is a cultural thing that FAA has their own RE&D program. They want to maintain it. NASA has some, also.

One of the programs that we mentioned, Mr. Chairman, was—and that you will be seeing shortly shown by FAA—is CTASS. This is a program, Mr. Chairman, that originated in NASA. We say in the statement that this was an opportunity that FAA almost lost.

NASA wanted to have a joint program with FAA. And FAA, in the early stages, was more interested in its own developments on advanced automation systems and did not believe that it needed this particular piece of software. It was more of a prototype.

However, in the years that ensued, my understanding is that Mr. Pozesky saw that this was a positive device, a positive system, and has changed that particular feeling. And FAA has brought that in. But that is illustrative of this turf issue.

Senator LAUTENBERG. Mr. Augustine, you can come on up and sit at the table. We are glad to have you here and understand your delay.

Mr. Li, your testimony also states, broadly, that "FAA has not actively sought NASA's input to help shape the vision of the future national airspace system."

We are going to be exploring this shortcoming with other witnesses, but I would appreciate if you would summarize that failing for us now and just highlight where you think the two agencies might be doing better working together.

Mr. LI. Mary Ann, can you answer that, please?

Ms. KRUSLICKY. The most significant area that we see where there could be better cooperation between NASA and FAA is, of course, in the satellite communication and navigation system.

As you are well aware, Mr. Chairman, this is going to be the technology of the future. NASA has a great deal of experience in this technology. And we could only see positive benefits coming out of closer working relationships with the two agencies.

The other area where I think that both agencies can benefit is in the area of human factors research. Human factors is something that we have got to continually keep at the forefront and intermixed with all of the research activities that FAA conducts. And, again, FAA and NASA have started this process by having a joint program. And we believe that program should continue and should be encouraged to continue.

Senator LAUTENBERG. I just want to put the question again: FAA has not actively sought NASA's input. Is that deliberate? Is it to protect the not-invented-here syndrome that we talked about, or is it just lack of awareness that NASA's got something of value to give here?

Mr. LI. Well, I think, Mr. Chairman, that in the previous years—and I remember when I was doing work on aircraft noise. I found that the relationship between NASA and FAA was more of a coordination one: "I am going to be doing this work. And you are going to do this work. And we are not doing anything that overlaps."

And in direct response to your question, Mr. Chairman, the improvement that I think is necessary is for NASA to be involved at an early stage in the long-range planning aspects of FAA's work. Right now, NASA is not involved in the long-range planning aspects.

For example, in satellites, the transition from ground based to satellites, NASA is only involved in the navigation end of satellites. They are not involved in the communications and the surveillance. So I would suggest that that is one area where an improvement could be made.

Mr. HAMPTON. If I could comment on that briefly. In our work, we spoke with NASA and FAA researchers. And part of the problem, again, is cultural, like the not-invented-here syndrome.

FAA viewed NASA as just another contractor, not as an organization that could bring value to the work.

Senator LAUTENBERG. Not a partner in the true sense.

Mr. HAMPTON. Exactly, sir.

Senator LAUTENBERG. How do we get around something like that? Mr. Augustine, you have had that experience, I am sure, in your business life.

But the question of how you get two departments working together cooperatively, putting their best resources together for evaluating where you are, is difficult.

Are there any suggestions that the folks from GAO or you would like to make? We are going to call on you for a statement in a minute, Mr. Augustine.

Mr. AUGUSTINE. Well, Mr. Chairman, obviously it is something that is not done by dictate nor is it easily done. I think the two key ingredients are to have a common set of incentives for the organizations you want to have work together.

And second, is to create a situation where the people have a chance to build trust, where they can truly work together, they get to know each other, they have confidence in one another. And that very quickly breaks down the barriers that I have seen in the past.

They have to be motivated to work together. And the one way to do that is to be sure that they are measured by the same set of parameters.

Mr. LI. Mr. Chairman, just jumping on that point, I agree with what Mr. Augustine said. I believe that what we need are some more success stories. I think the success stories are going to be coming out of the working relationship that they have on CTASS, where people in both agencies will see, "Yes. We can work together. We come up with a product that is useful to the airlines."

The more success stories we have, the more people will feel that they will want to cooperate.

Senator LAUTENBERG. That is sometimes a hard culture to change. It is not necessarily a matter of jealousy or protection, but rather, as I think you said, it is a lack of understanding of what the other party brings to the table.

And obviously, you also have to make certain that appropriate credit is distributed, because no one likes to do the work without getting some recognition.

Thank you, Mr. Li.

Mr. Augustine, we wanted to hear from you. And if you have a statement that you can deliver in 5 minutes, we would appreciate it. If you take 6, we will not get too excited, but please do not cross the line and go to 7. [Laughter.]

STATEMENT OF NORMAN AUGUSTINE

Mr. AUGUSTINE. Mr. Chairman, thank you very much, and members of the committee. It is a—we appreciate very much the opportunity to appear before you today to share with you some views on the FAA's R&D program.

With your permission, I would like to submit a formal statement for the record. I will speak briefly.

Senator LAUTENBERG. Without objection.

Mr. AUGUSTINE. Thank you. I appear in my capacity as Chairman of the Research and Development Plan Review Panel of the FAA's Research, Engineering and Development Advisory Committee.

As you know, that committee is a group of people who are not employees of the FAA and who have expertise in various areas relating to air traffic management.

With me today is John Zugschwert, who is a technical consultant to that panel.

I should also state for the record, Mr. Chairman, that I serve as a chairman and chief executive officer of the Martin Marietta Corp. We do some contract work for the FAA. And although I do not think it relates specifically to my testimony today, I would want to state that for the committee's background.

The technology of air traffic control has obviously changed a great deal over many years. And we now are on the threshold, I think, of some major breakthroughs. And the other witnesses have alluded to some of those in the area of space, the use of space for location and communication, the use of greater amounts of automation would just be examples of that.

Similarly, the demands on our air traffic system in this country have grown enormously in recent times. Today we are in a situation where about twice the population of Detroit boards an airplane somewhere in the United States every day.

And if one looks at projected increases in travel and the impact that that will have on capacity demands, if one looks at security demands of the future and one would hope to continue to improve the already rather outstanding safety record of the air traffic system, it becomes apparent that a great deal of new technology will need to be infused into our air traffic management system.

The panel that I have the privilege of sharing, made a report in November 1991 to the Administrator of the FAA, in which we offered a series of 15 recommendations that are included in the statement that I have submitted for the record.

The principal findings at that time were that there were some management improvements that would be helpful to carrying out the R&D plan. And we raised some concerns about whether the FAA had an adequate number of technically qualified people, highly qualified people to execute the plan that appeared to be needed.

Second, we raised concerns about whether the plan was adequately funded. We were asked to revisit our initial study about a year later. And we submitted a second updated report in January of this year, intended to be available for the new administration when it came in.

We concluded that considerable progress had been made by the FAA in its management and staffing of its R&D activities. In fact, we would view that, although certainly never perfect, the FAA's R&D management is quite strong.

At the same time, we have concluded that the funding that has been programmed is not sufficient to either carry out the plan as it is now prescribed nor to meet the needs that our group would see for the future.

And, in fact, we find that the FAA is severely underinvesting in the basic technology, the building blocks that will permit them to efficiently build the systems that will underpin the air traffic system in the year 2000.

And if that funding is not substantially increased over time, it would seem likely to us that we will have a very brittle air traffic system as further demands are placed on it. And we feel that is particularly the case in regard to capacity.

So our strongest recommendation was that the FAA's R&D underpinning budget be increased stepwise to $500 million a year by fiscal year 1996. And we do believe the FAA has the wherewithal to officially manage such an increased program.

Mr. Chairman, that summarizes the basic points I would like to make. Mr. Zugschwert and I would be happy to answer any questions you might have.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Augustine. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF NORMAN R. AUGUSTINE

Mr. Chairman and Members of the Committee, I particularly welcome this opportunity to share with you some views concerning the adequacy of the Federal Aviation Administration's Research, Engineering and Development Program. I appear before you in my capacity as Chairman of the Research and Development Plan Review Panel of the FAA Research, Engineering and Development Advisory Committee. The FAA R,E&D Advisory Committee, as you know, is comprised of persons not employed by the FAA who have been asked to provide independent advice concerning matters within their areas of technical expertise. The Committee's membership is comprised of individuals having backgrounds in such disciplines as airline operations, aerospace technology, weather forecasting, airport operations, military air operations, aircraft manufacturing and air traffic management. My remarks this morning will be drawn from reports prepared for and approved by this advisory committee and I will, to the best of my ability, seek to confine my remarks to those views.

Nonetheless, I would like to make you and your committee aware of the fact that I also serve as Chairman and Chief Executive Officer of the Martin Marietta Corporation, a firm which performs considerable contract work for the FAA. At the time the report to which I will be referring was prepared, Martin Marietta had little or no involvement in the type of activity being addressed in this review; however, with the recent consolidation of the aerospace elements of the General Electric Company with Martin Marietta, that is no longer the case. I mention this only to assure that my affiliations are clear to the committee.

Our Panel's formal review of the FAA's Research, Engineering and Development Program began approximately two years ago and initially raised what we believed to be rather important shortcomings in two separate areas. The first and foremost of those concerned the adequacy of the technical effort being supported—in terms of its scope—to underpin so critical a national priority as the safe and efficient operation of the nation's air transportation system. Second, the Panel expressed concern over certain aspects of the FAA's management of the technical activity which was being pursued, particularly with regard to the availability of a sufficiently large body of technical talent to assure the successful execution of the programs. Earlier, concern had also been expressed by the Panel's members over the connection between operational needs and the technological tasks which were being undertaken. By the time of the Panel's initial report in November 1991, most of the latter concerns had been resolved. Approximately one a year after making its initial findings the Panel revisited the status of the FAA R,E&D Program and submitted an updated report in January of the current year intended for use by the new Administration. This more recent report found the FAA's system for managing R,E&D tasks to be quite sound, but still found the technical work being pursued to be, in the Panel's judgment, altogether inadequately funded. As a consequence, it was our opinion that the technological building blocks needed to cope with the safety, security and, particularly, capacity demands of the next century will simply not be in place. This could obviously have serious adverse impacts in such areas as air traffic delays which could in turn affect our economy as a whole as our nation becomes increasingly dependent upon air transportation for its commerce.

Although direct comparisons are difficult at best, it was the Panel's finding that the FAA's basic R,E&D program is grossly underinvested as compared with those of other high-tech organizations, and that this problem will be exacerbated by ongoing reductions in Department of Defense spending in that the latter has often been the root source of much of the FAA's technology.

The complete set of the Panel's specific recommendations is as follows:

Recommendation 1: That the safe achievement of additional airspace and airport system capacity be assigned as the highest priority within the FAA research, engineering and development activity.

Recommendation 2: That, in view of the conviction that historical funding levels are not adequate to execute the proposed research and development program, additional financial resources be programmed based upon a re-examination of likely costs of each individual project.

Recommendation 3: That the FAA take steps to enhance competitiveness in acquiring and retaining highly qualified technical personnel, including fully utilizing recently approved government-wide personnel legislation; and that it establish centers of excellence at selected universities to address FAA-related issues and train a cadre of future leaders.

Recommendation 4: That the process for establishing requirements and justifications for the technology program draw heavily upon the FAA's operating organizations and users' stated needs, but that the research and development organization also be encouraged to pursue promising technology possibilities and innovations even though they may not yet have the support of users or operating services.

Recommendation 5: That the FAA's system engineering methodology be used and strengthened to translate user needs and technological opportunities into goals and to flowdown requirements, establish programs, assess results, provide integration across program areas, and serve as the basis for the allocation of technology funds.

Recommendation 6: That the national simulation capability be funded on an expedited basis and used to streamline the transition of new technologies and concepts into the nation's air traffic system.

Recommendation 7: That the FAA's current activities for prototyping of critical new technologies be strengthened through the provision of greater budgetary support, broader integration and increased management attention so as to expedite the fielding of new ideas.

Recommendation 8: That the project manager exercise principal authority in the execution of technology programs, with the support of a qualified contracting officer, and that contracts for technology development recognize the uncertainty inherent in such activity and utilize contract instruments which appropriately balance risks between the government and its suppliers.

Recommendation 9: That the latitude to determine which early technological pursuits are worthy of funding not be narrowly reposited in a few senior management individuals but rather be widely diffused throughout industry, academia, government and not-for-profit organizations through the provision of modest sums of discretionary funding to be used to encourage innovation.

Recommendation 10: That the FAA plan the augmented program recommended herein with the maximum appropriate intra-governmental, academic and industrial cooperation to maximize and leverage the synergistic benefits of each of their capabilities.

Recommendation 11: That a process be created which accelerates the introduction into the field of system improvements funded in the Research, Engineering and Development Plan and that all projects be supported by an implementation plan (contingent upon the success of the development effort).

Recommendation 12: That an expanded portion of the funding now being devoted to security be allocated to basic research in that area, and that efforts addressing the security of data systems be considerably enhanced.

Recommendation 13: That increased effort be devoted to the early application of spaceborne elements in support of the air traffic control system and to the solution of remaining integrity issues and procedure development pertaining thereto.

Recommendation 14: That the FAA ensure that activities are closely coordinated in the critical human factors area and that projects described in the National Plan for Aviation Human Factors as having FAA prime responsibility be included in the FAA Research, Engineering and Development Plan and appropriately budgeted.

Recommendation 15: That the section on innovative and cooperative research be deleted as a separate topical section in the FAA Research, Engineering and Development Plan and be emphasized throughout the entire body of the Plan.

I would like to conclude by citing the principal recommendation offered by the FAA R,E&D Panel in their report of January of this year. Namely, "that annual funding of the FAA research, engineering and development activity be increased stepwise to $500 million by fiscal year 1996."

The Panel concludes that past funding of the FAA R,E&D program has been altogether inadequate to meet expected needs, that the current budget request is not sufficient to carry out the work which is planned, and that the FAA does now have the management wherewithal to effectively executive a program of the magnitude we propose.

Mr. Chairman, I again thank you and the members of your committee for affording our Panel the opportunity to share with you its findings which, although at times critical, are offered in the most constructive possible sense. I would, of course, be happy to address any questions you might have.

Thank you.

BIOGRAPHICAL SKETCH

NORMAN R. AUGUSTINE

Norman R. Augustine was born in Colorado and attended Princeton University where he was awarded a BSE in Aeronautical Engineering magna cum laude, an MSE, and was elected to Phi Beta Kappa, Tau Beta Pi and Sigma Xi. He holds Honorary Doctor of Engineering Degrees from the University of Maryland, Rensselaer and Western Maryland College, an Honorary Doctor of Science Degree from the University of Colorado, and an Honorary Doctor of Management Degree from Embry-Riddle. In 1958 he joined the Douglas Aircraft Company where he held titles of Program Manager and Chief Engineer. Beginning in 1965, he served in the Pentagon in the Office of the Secretary of Defense as an Assistant Director of Defense Research and Engineering. Joining the LTV Missiles and Space Company in 1970, he served as Vice President, Advanced Programs and Marketing. In 1973 he returned to government as Assistant Secretary of the Army and in 1975 became Under Secretary. Joining Martin Marietta Corporation in 1977, he has been Chairman and CEO since 1988 and 1987, respectively, having previously served as President and Chief Operating Officer.

Mr. Augustine is Chairman of the Board of Governors of the American Red Cross and Executive Vice President of the Boy Scouts of America. He has served as national chairman of the U.S. Savings Bond Campaign. chairman of the Defense Policy Advisory Committee on Trade (DPACT), president of the American Institute of Aeronautics and Astronautics, of which he is an Honorary Fellow; president and chairman of the Association of the United States Army; chairman of the Defense Science Board; chairman of the Aeronautics Panel of the Air Force Scientific Advisory Board; chairman of the Executive Council on Foreign Diplomacy; chairman of the NASA White House Committee on the U.S. Space Program; chairman of the NASA Space Systems and Technology Advisory Committee; and as a member of the NASA Advisory Council. He has been elected to the National Academy of Engineering, a Fellow of the American Academy of Arts and Sciences, the International Academy of Astronautics of which he is a Trustee, an Honorary Fellow of the Society for Technical Communications, a Fellow of the American Astronautical Society and a Fellow of the Institute of Electrical and Electronic Engineers. He is a licensed professional engineer in the State of Texas.

He is a member of the Board of Directors of Phillips Petroleum, Procter & Gamble, Riggs National (Bank) Corporation, the Ethics Resource Center, The Planetary Society, the Atlantic Council and the New American Schools Development Corporation. He has served on Boards of the Colorado National Bank, Hoskyns Group plc of the UK as chairman, the Wolf Trap (National Park) Foundation, Ford's Theatre, the American Helicopter Society, the Air Force Academy Foundation and the Research Triangle Institute. He has been on advisory boards to the White House, U.S. Senate, NASA, FAA, and the Departments of Defense, Army, Navy, Air Force, Energy, and Transportation, the General Accounting Office, and NATO. He is Vice Chairman of the President's National Security Telecommunications Advisory Committee, Chairman of the Maryland Business Roundtable for Education, a Principal of the Council for Excellence in Government, and a member of the Advisory Council of the Women's Research and Education Institute, the Policy Council of the Business Roundtable, The Business Council, the Conference Board, the United States-Japan Leadership Council, the Carnegie Commission on Science, Technology and Government, a member of the Board of Governors of the Aerospace Industries Association, and has been a member of the Corporation of the Draper Laboratory and of the Chief of Naval Operations' Executive Panel.

Mr. Augustine is a Trustee of Princeton University and The Johns Hopkins University, an Honorary Member of the Faculty of the Industrial College of the Armed Forces and a member of the Advisory Council of the School of Medicine at Johns Hopkins. He has chaired advisory councils for Princeton University, the American University, the University of Maryland and the MIT Lincoln Laboratory, and served on advisory boards for the University of Colorado, Georgia Tech, Duke, Texas A&M, USC, Johns Hopkins, Florida State, and the National Defense University, where he was a Bernard Baruch Lecturer, and has delivered the von Braun Memorial Lecture at the Smithsonian.

He has four times been awarded the Department of Defense's highest civilian decoration, the Distinguished Service Medal, and has received the Defense Meritorious Service Medal, the Army Distinguished Service Medal, the Air Force Exceptional Service Medal and the Department of the Treasury Medal of Merit and Gold Medal of Merit. He is a recipient of the National Security Industrial Association's Forrestal Memorial Award, the National Space Club's Goddard Trophy. the American Astronautical Society's Military Astronautics Trophy, the American Institute of Aeronautics and Astronautics' Goddard Medal, the National Academy of Engineering's Bueche Award, the Association of the U.S. Army's Distinguished Service Award, the American Defense Preparedness Association's Gold Medal, Knowles Award and John C. Jones Award, the American Association of Engineering Societies' National Engineering Award, the Society of Manufacturing Engineers' Gold Medal, the Industrial College of the Armed Forces' Eisenhower Award, the National Contract Management Association's Roback Award, the Armed Forces Communications and Electronics Association's Sarnoff Award, the University of South Florida's Leonardo da Vinci Award, the University of Maryland's Engineer of the Year Award, the Institute of Electrical and Electronics Engineers' Carlton Award, the American Society of Metallurgy's Distinguished Life Membership Award, the Colorado ARCS Man of Science Award, the Boy Scouts Citizen of the Year Award, The N.Y. Navy League Eagle of Industry Award, the Harvard Business School Club of Washington Business Statesman Award, the Air Force Association's John R. Alison Award, the California Institute of Technology Management Association's Excellence in Management Award, the Rotary National Space Trophy, the Public Employees Roundtable Chairman's Award, the Aviation Week Aerospace Laureate Award, and is an Honorary Command Sergeant Major of the U.S. Army.

In pursuing his hobbies, he has dog-sledded in the Arctic and explored volcanoes in the Antarctic; backpacked in the Canadian Rockies; horsebacked in the U.S. Rockies; sailed a tall ship in the West Indies; traveled the Oregon Trail in a covered wagon; snorkeled on the Great Barrier Reef; hot-air ballooned in Africa; rafted the

Grand Canyon; traveled the Out-Back of Australia; been on camera safari in Tanzania and Kenya; and photographed polar bears in the Northwest Territory.

Mr. Augustine is co-author of *The Defense Revolution* and author of *Augustine's Laws,* printed in four languages; holds a copyright on a calculator for baseball managers; and is listed in *Who's Who in America* and *Who's Who in the World.* He is married to the former Margareta Engman of Stockholm, and they are the parents of a son, Gregory, an electrical engineer, and a daughter, René, an attorney who is married to Mark Alarie, a student at the Wharton School and a former NBA basketball player.

PRIVATE SECTOR RE&D

Senator LAUTENBERG. We appreciate the fact that you were able to be awake and alert this morning, knowing that you traveled some distance. You apparently got in last night, is that——

Mr. AUGUSTINE. I just got back from China.

Senator LAUTENBERG. That is significant——

Mr. AUGUSTINE. Well, there were also some air traffic problems.

Senator LAUTENBERG. It sure makes you wish there were some more supersonic commercial airliners around.

Mr. AUGUSTINE. It does, indeed.

Senator LAUTENBERG. Yes; one of the things that arises in my mind as we discuss budgets for research, engineering and development by the FAA, is how much they parallel, perhaps even duplicate, those taking place in the private sector.

Is there any basis for estimating how similar investments are that are made within the private sector? Let us see, there are all kinds of manufacturers that have interests in various parts of the aviation system.

Mr. AUGUSTINE. It is an important point, because there is work that is conducted not only in the private sector, there's work in academia that we believe could be drawn upon to a much greater extent. And of course, there is work that goes on in other Government agencies, such as NASA and the Department of Defense.

If I might just comment with regard to the current reductions in the Department of Defense budget, that is going to take away one of the major sources of seed corn for FAA R&D activities.

On the other hand, it does make available a rather large body of highly talented technical people that the FAA could draw on.

With regard to the specific investment in the private sector in matters that relate to air traffic management, I am not able to quote a number. The amount of effort that is underway that could be drawn upon tends to vary from sector to sector.

In the area of computers, there is a great deal of work that goes on in the private sector. In the area of, for example, radars or space sensors, there is relatively little. And so it tends to vary with the technology, but there is no question that there is a large body of available information in the private sector that the FAA can and does draw on, and also in NASA. And I have been very impressed with the spirit of cooperation between NASA and the FAA.

The FAA has people located at NASA. There is a good deal of interface with the Army in that regard. And I would also agree that there are different kinds of relationships. Some are ones where you send letters back and forth. And the other is where you truly work together. And the goal is the latter.

Senator LAUTENBERG. I am sorry that you were unable to join us a few minutes earlier, because we discussed that matter at some length. In GAO's review, it suggested that FAA could ask for more assistance from NASA though there is a question of how much overlap or redundancy there might be with different parts of Government.

Now, I guess that it is a difficult assignment to try to gauge how much the private sector is doing in areas that are being reviewed by FAA. Whether or not we could generate some information that permits FAA and other departments of Government to evaluate what is going on in the other sectors—you mentioned academia—and it is important not to shut off challenges and exploration to anybody because there could be different tracks on which one organization runs which could be considerably different than the tracks of another. Though I think that it would be of significant help, if we knew where the investments were being made. I guess, in general, that information kind of floats to the top. I do not know how it happens. Do you?

Mr. AUGUSTINE. Well, actually I suspect you do know, because of your background. As you would be acutely aware, those in the private sector are forever looking for opportunities to apply their technology with the hope of making a profit.

And so I think there is less concern about capabilities in the private sector bubbling up than there would be about capabilities in other parts of the Government.

In other words, there is an inherent motivation in the private sector to make known to the FAA what it is doing. Whereas that motivation, other than from goodwill, probably does not exist at NASA or the DOD.

Senator LAUTENBERG. We will continue to watch with interest. The private sector will have the long-range opportunities in front of them, if things go as planned. But system coordination is perhaps the toughest job of all and that is to bring everything together on time and on budget, et cetera.

We keep trying though. And I do think that there is talent in FAA to monitor these activities, but I also think that more could have been done than has been done. We hope that this hearing will encourage the members of FAA to be more engaged with other departments of Government.

Mr. Augustine, you recommend that the annual funding of FAA's RE&D program be increased incrementally to $500 million by 1996. That would approximately double the current level.

I do not have to remind you about the budget problems. That alone makes one more keenly aware of what has to happen in order to get that kind of funding and what has to happen to obtain the kind of results if you have it.

Now, do you see this added funding being used to expand FAA's existing program, focusing on new areas that may now be underfunded, or do you see it going toward kind of basic RE&D newly identified concepts or technology?

Mr. AUGUSTINE. Our committee would view the funding to be spent for both purposes you cited. Clearly, the larger amount would go to carry out the plan that the FAA has already set out and that we believe cannot be carried out with the funding that is now programmed.

In other words, we think there is a mismatch between the funds available and the needs that have been established.

I think three questions have to be answered with regard to our recommendation. One, is there really a need for the additional work?

Second, can the FAA bring together the management talent to execute that larger program?

And third, are the funds available? Can the Nation afford it?

And the latter, only you and others can answer. I would offer that although $500 million is no small amount of money as compared with what this Nation invests in air traffic management, it is not a large amount, assuming that it really does offer leverage.

And it has been my experience in the past that when one tries to save money on the technical underpinning—the building blocks, if you will—and then subsequently tries, just as you said, to bring systems together, you have problems in bringing those systems together, because you have not done your homework.

And instead of having problems in the laboratory, you suddenly discover you are having problems in the field, where it causes schedule impacts and operational impacts. And the cost is enormous of solving problems at that point.

So my view would be that this would—and I should say our panel's view would be that this would be a very good investment.

Senator LAUTENBERG. And just to touch on a subject that you mentioned. That is, could FAA ramp-up sufficiently in that period of time to be able to use those funds effectively or would they, in the panel's judgment, have to turn to private contractors, et cetera?

Mr. AUGUSTINE. We do believe the FAA could ramp-up. We believe they would have to have some additional technical talent inhouse, which is clearly available today with the cutbacks in the DOD budget and the leveling of the NASA budget.

But we also think there is room to do more in the private sector and also in academia. We would like to emphasize that, for example, in the area of security, we spent a great deal of money on security of air travel in this country, but relatively little on R&D for new concepts to enhance security of air travel.

And much of that is of a rather fundamental nature. And that is the sort of thing that universities tend to do very well and relatively inexpensively. So I would think there would be segments that could be done both in the private sector and in universities, as well as in other departments of the Government. NISK would be an example of the latter.

Senator LAUTENBERG. As we review FAA, its budget and so forth, it would be almost unfair to not acknowledge something that one of you said in terms of the capacity or the current carriage of the system. It is really remarkable.

I do not know how many movements each day—physical movements of aircraft—take place, but the number of people that are carried without incident, is really beyond one's wildest imagination.

We are moving millions and I guess it comes to billions of passenger-miles, easily, each year. I fly a lot and I see it. But when one sees the airports in the New York area, Chicago, Los Angeles, and all around the country, including general aviation, it is such a safe system.

Although accidents do happen—compared to almost any other mode of transportation, boy, aviation really wins the cup. And it is FAA's involvement in management. Even though we criticize it, we would like to see things move along a little more rapidly. And I am one of those, I must tell you. It is a remarkable system.

Mr. Augustine, your report justifies the doubling of FAA's RE&D budget and talks about the consequences of not making the investment and the possible erosion of U.S. aviation leadership.

What kind of leadership are you talking about?

Mr. AUGUSTINE. I would begin with, really, the very point that you made, that one of the true bright spots in this country's competitiveness today lies in the area of commercial aviation.

Half a billion passengers in this country alone board an airplane every year—half a billion. And with safety, that is beyond what I think even those of us in the field could ever have hoped would be accomplished. It is one of the great success stories of America.

Senator LAUTENBERG. Absolutely.

Mr. AUGUSTINE. It is not something that has been done easily or over a short period of time. And the lead we have and the capability we have is very brittle. I use that term with respect particularly to the capacity of the system. And we even see signs of that today.

The system works very well until there is a local weather problem. And then suddenly that ripples throughout the system. And we discover the system saturates quickly, which suggests we are operating somewhere near the limits of our capability.

As good as our safety record is, it has plateaued in recent years. It is not improving significantly. And while it is very good, it is not perfect.

So—also, I might mention that one of the leading—as you would know—export areas in our country has to do with aviation. It is one of the areas that is at the leading edge of technology.

And that is a lead that our panel feels is important to the country and should be preserved, but it requires reinvesting in the technology seed corn. And candidly, we are eating our seed corn at this point.

Senator LAUTENBERG. One observation of full use of the capacity. If you look at the schedules of lateness, tardy arrivals, departures, et cetera, et cetera—I mean, I draw from personal experience and I am sure it is not different from those who fly and land at an airport and wait 15 minutes for a gate to open.

Also, I think we do have to continue to search for a flexible transportation system that offers high-speed rail for relatively short journeys—a couple hundred miles, 300 miles.

If we could make trips like that at 120 or 130 miles an hour, which is by no means stretching the limit, it might relieve some of the congestion we find in the skies. The delays are, I find, interminable. It is rare.

More often, I will wait longer either taking off or on the ground landing, than I do flying. I fly a lot between here and New York and New Jersey. And I will tell you that it is frustrating. We know that the capacity is being stretched considerably.

And the other thing, you mentioned the edge that we have—and I talked about it and Mr. Li talked about it—in terms of the competitive world.

They—whoever the they is—are constantly breathing down our backs. Whether it is the sale of airplanes or other equipment, there are almost desperate efforts, whether it be in Europe or in the Far East, to take chunks out of that business away from us, including what I suspect might be intrusion by Government, by way of financing of equipment, et cetera, et cetera.

So we dare not falter, because as the course goes on, there are people running behind us who are wearing ever faster sneakers. And we have to continue to make those investments, otherwise we will lose what I think is an incredibly great asset for this country.

Your January 1993 update states, "The impact of commercial aviation on the U.S. employment is about 7.8 million jobs."

Do you have any estimates on how aviation, RE&D, Federal aviation might impact that job figure? How would you describe the link between RE&D and jobs and which areas do we seem to have the most direct linkage?

Mr. AUGUSTINE. The 7.8 million includes direct employment and also trickle-down employment within the economy that closely relates to the aviation industry.

And the jobs issue and the number of jobs is directly coupled to our ability to be competitive in the world economy. And it comes back to the very point you were making. There is both an up side and a down side here. There is an opportunity that if we continue to modernize our systems and have export products, to have airlines that are worldwide competitive, we can create new jobs.

The other side of that is, that it takes only a very short period of time in the high-technology area, such as aerospace, to be noncompetitive in the world. The half-life of technology in this field is very rapid, probably second only to that in the semiconductor area.

And if one does underinvest in the future, one very quickly has systems that are not exportable. We are not competitive if we lose jobs or we have seen this happen in other industries and my hope is that in this—one of our crown jewel industries, that we will not let that happen.

And you, Mr. Chairman, made a point that I think is terribly important, which I wish I had made. And that is, that this industry has a degree of competitiveness that goes beyond that associated with the normal consumer marketplace. And the reason is the involvement of governments in this particular market.

And when you are selling aircraft or you are selling air traffic control systems, you are dealing with other countries whose governments work as a partner with their industry—a full partner.

And while I am not one to particularly enjoy the involvement of government in the commercial world, it is a fact that it does take place. And we need to have a strategy in this country that deals with that. And I am glad that you recognize that.

Senator LAUTENBERG. Well, the impact of a good functioning aviation system—airport, is obvious in so many places. I was a Commissioner of the Port Authority of New York and New Jersey before I came here. That included management of, technically, four airports, including a general aviation airport that has very high volume in Teterboro, NJ.

But when the new Newark Airport was put in place, you could feel the economy surge forward. In result, people moved to the area, because they knew that they could go from place to place with dispatch and businesses emerged.

It makes an enormous difference. If you look around the key places in the country—we are soon going to be opening a new airport in Denver. When Denver got tied up before with weather, the whole system came to a grinding halt. It need not happen. As we invest in the system, we can see economic opportunity following right behind it.

So thank you very much. We are pleased to have you here. We will now call on the second panel. If we have other questions for you, we will submit them. Thanks for your work with that subcommittee—that panel.

Mr. AUGUSTINE. Thank you, Mr. Chairman.

PANEL II

OFFICE OF TECHNOLOGY ASSESSMENT

STATEMENT OF KEVIN DOPART, PROJECT DIRECTOR, FEDERAL RESEARCH AND DEVELOPMENT FOR AVIATION

ACCOMPANIED BY NANCY CARSON, PROGRAM MANAGER

NONDEPARTMENTAL WITNESS

STATEMENT OF DR. JACK FEARNSIDES, SENIOR VICE PRESIDENT AND GENERAL MANAGER OF THE MITRE CORP.

INTRODUCTION OF WITNESSES

Senator LAUTENBERG. We would now like to hear from Dr. Fearnsides and Mr. Dopart. We will hear from Dr. Fearnsides first. Dr. Fearnsides is the senior vice president and general manager of the Mitre Corp. We appreciate you being here today.

STATEMENT OF DR. JACK FEARNSIDES

Dr. FEARNSIDES. Thank you, Mr. Chairman. My name is Jack Fearnsides. I am senior vice president and general manager of the Mitre Corp.

I am also the Director of the Center for Advanced Aviation System Development, which is part of Mitre and which is FAA's Federally Funded Research and Development Center [FFRDC].

Our deep knowledge of technology and operations enables our innovations to be oriented toward the expeditious fielding of new system capabilities rather than just the invention of new technologies.

It is important for the committee to note that R&D today is not what R&D was yesterday. Yesterday, R&D was what you did before you embarked on the long acquisition process. Today, R&D merges seamlessly into a continuous development process resulting in early and frequent product improvement.

Mr. Chairman, Norm Augustine has described for you the findings of the committee that he chaired. I served on that committee and agree entirely with the results.

I would like to emphasize the first-ranked recommendation of the Augustine Committee, and, indeed, one that encompasses some of the other recommendations. That is the need for R&D to increase system capacity and reduce costly delays that affect airlines, passengers, and related businesses.

There are two areas that need immediate investment: traffic flow management research, and what I call system engineering research. For a variety of reasons, these investments are now timely.

A business would begin these investments in fiscal year 1994, but the Federal budget process puts a 2-year delay in getting funding for new ideas.

Traffic management research addresses such problems as how does the system react, say, to thunderstorms that will close a major airport for an unspecified length of time. For a long time, air traffic control specialists thought that this problem was an extension of traditional procedures.

Now, especially as a result of an FAA-wide team that Marty Pozesky caused to happen, we understand that traffic flow management is an extremely complex process that cannot be worked by the FAA itself, but rather only in intensive collaboration with the airlines.

In short, and as a result of the FAA team, we now know what R&D needs to be done, and how to expedite these benefits to system users, by employing both modern system development techniques, and modern management methods.

Marty's team, which had members from operations, systems engineering, and system development organizations, reported their results to the FAA, achieved consensus within the FAA, and achieved consensus with the airlines, and all are in agreement now on how to proceed.

All that is needed now is financial support. I estimate the cost of this effort to be $150 million over 5 years, beginning in fiscal year 1994.

The second area, which I call system engineering research, is triggered by the recent opportunity to expedite the delivery of user benefits. Such programs as the automated en route air traffic control [AERA], or terminal air traffic control automation [TATCA], and data link programs, and these are programs that receive universal industry support, are now on a faster track than the ones previously agreed to.

But now we have a need-to-know more quickly how to make these programs work together, and how to make them be user-friendly. That is, can the controllers work with it? We know how to do this using modern simulation and prototyping technologies.

We have scoped the problem, and as above, know how to expedite delivery to system users by employing modern system development and modern management techniques. I estimate the funding for this program to be $110 million over 5 years, beginning in fiscal year 1994.

Mr. Chairman, what I propose here is 20 percent of the increment that is recommended by the Augustine Committee. As stated in that report, there are other pressing R&D needs to be met.

In recent years, while there has been a small increase, adjusted for inflation, in R&D funding, there has been a correspondingly larger increase in nonair traffic control R&D.

These have been wise investments, but have resulted in a reduced investment in air traffic control research, at a time when operational requirements were changing dramatically. It has taken us a couple of years to figure out how to deal with these dramatic changes. Now we know how, and we need to get started.

Thank you for your attention, Mr. Chairman. I will be happy to answer any questions.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Dr. Fearnsides. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF JOHN J. FEARNSIDES

Mr. Chairman, thank you for inviting me to appear before your committee. My name is Jack Fearnsides, and I am a Senior Vice President and General Manager of The MITRE Corporation. I am also the Director of the Center for Advanced Aviation System Development, which is part of MITRE and which is FAA's Federally Funded Research and Development Center (FFRDC). Our deep knowledge of technology and operations enables our innovations to be oriented towards the expeditious fielding of new system capabilities rather than just the invention of new technologies. It is important for the Committee to note that R&D today is not what R&D was yesterday. Yesterday, R&D was what you did before you embarked on the long acquisition process. Today, R&D merges seamlessly into a continuous development process resulting in early and frequent product improvement.

Mr. Chairman, Norm Augustine has described for you the findings of the Committee that he chaired. I served on that Committee and agree entirely with the results. I would like to emphasize the first-ranked recommendation of the Augustine Committee. That is the need for R&D to increase system capacity and reduce costly delays that affect airlines, passengers, and related businesses. There are two areas that need immediate investment: Traffic Flow Management Research and System Engineering Research. For a variety of reasons these investments are now timely. A business would begin these investments in fiscal year 1994 but the Federal Budget process puts a two-year delay in getting funding for new ideas.

Traffic Management Research addresses such problems as "How does the System react, say, to thunderstorms that will close a major airport for an unspecified length of time?" For a long time, air traffic control specialists thought that this problem was an extension of traditional procedures. Now, especially as a result of a team that Marty Pozesky caused to happen, we understand that traffic flow management is an extremely complex problem that cannot be worked by the FAA itself but rather in intensive collaboration with the airlines. In short, and as a result of Marty's committee, we now know what R&D needs to be done and how to expedite these benefits to system users by employing both modern system development techniques and modern management methods. Marty's team reported their results to the FAA and to the airlines last month and all are in agreement on how to proceed. All that is needed now is financial support. I estimate the cost of this effort to be 150 million dollars over five years beginning in fiscal year 1994.

The second area, which I call System Engineering Research is triggered by the recent opportunity to expedite the delivery of user benefits. Such programs as Automated En-Route Air Traffic Control (AERA), Terminal Air Traffic Control Automation (TATCA), and Data Link, programs that receive universal industry support are now on a faster track than the one previously agreed to. But now we have a need to know more quickly how to make these programs work together and to make them be "user friendly". We know how to do this using modern simulation and prototyping technologies. We have scoped the problem, and as above, know how to expedite delivery to system users by employing modern system development and modern management techniques. I estimate the funding for this program to be 110 million dollars over five years beginning in fiscal year 1994.

Mr. Chairman, what I propose here is twenty percent of the increment that is recommended by the Augustine Committee. As stated in that report, there are other pressing R&D needs to be met. In recent years, while there has been a small increase (adjusted for inflation) in R&D funding, there has been a correspondingly larger increase in non-ATC R&D. These have been wise investments but have resulted in a reduced investment in air traffic control research at a time when operational requirements were changing dramatically. It has taken us a couple of years to figure out how to deal with these dramatic changes. Now we know how and need to get started.

Thank you for your attention. I will be happy to answer any questions.

STATEMENT OF KEVIN DOPART

Senator LAUTENBERG. Mr. Dopart, we are pleased to hear from you.

Mr. DOPART. Good morning, Mr. Chairman. My name is Kevin Dopart, and I am a project director at the Office of Technology Assessment. Accompanying me is Nancy Carson, a program manager at OTA.

My testimony today is based on a study in progress, in which we are assessing Federal research and technology for aviation. The report will be released this fall to the House Committee on Science, Space, and Technology. Today I will address operational planning and coordination for aviation research.

First, it is important to note that the scope of research and technology development differs for regulation and air traffic control, which are the two key missions of FAA.

FAA's regulatory duties include safety, security, and environmental protection. Long-term research priorities in these areas are scientific or analytical in nature. Much of this type of research is conducted outside of FAA.

For example, NASA provides the lion's share of nonmilitary research for aviation human factors as well as for reducing aircraft noise and emissions. It is essential that FAA has adequate in-house expertise to evaluate these research results, to apply that information, and to identify emerging issues.

The primary needs for FAA's other mission, air traffic control and management, are planning and systems engineering. Timely development and implementation of systems have been the problem, not the lack of fundamental technologies. FAA-managed projects for air traffic control often move slowly. To go from concept to operation can take 15 years or longer.

An additional difference in these missions is economics. For aviation safety, security, and environment, the performance of the existing system is quite good. Gains through new technologies will likely be both incremental and costly.

On the other hand, even small advances in air traffic capacity and efficiency can mean large savings and time and money to aircraft operators and the traveling public. Such improvements are achievable.

The main point OTA would like to emphasize today is that effective aviation R&D requires good operational planning, coordination, and the input of the end users. If Federal technology efforts for aviation are to be more future-oriented, leadership must come from FAA as a whole, not just its R&D sections.

While strong research and technology development efforts by FAA and others are critical, their application will be limited, without the support of FAA's regulatory and operating sections.

Technology push, rather than operational demand, has often driven past aviation research and technology programs. Superb technology is of little use if those responsible for installing it and operating it do not see the need.

FAA's foremost obligation for research and technology is to establish and continually review long-term operational requirements to the aviation system. The advice of pilots, controllers, technicians, and industry experts is crucial to this task.

FAA has taken promising steps to improve communication and coordination for aviation, internally, with other Government agencies, and with private industry. Noteworthy are FAA's recent efforts to institute better operational planning, and to encourage public/private partnerships for technology development.

It is too soon to say whether FAA will be able to avoid past difficulties, such as those in setting requirements for the advanced automation system.

In conclusion, OTA's look at aviation R&D suggests that research programs at FAA, NASA, and other organizations are moving ahead; however, there is still a need for improved leadership and coordination to ensure that the products of this research meet the most important needs of the aviation system.

It has been a challenge and a pleasure to explore these issues for Congress, and we look forward to continuing discussions.

Thank you. I would be happy to answer any questions.

Senator LAUTENBERG. Thank you very much. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF KEVIN DOPART

FEDERAL RESEARCH AND TECHNOLOGY FOR AVIATION

Aviation safety and efficiency—the primary missions of the Federal Aviation Administration (FAA)—depend strongly on advanced technologies and the people who use them. Today, a passenger or freight shipment can travel by air across the United States more safely, for less cost, and with less environmental impact than ever before. Many of these improvements stem from core technologies derived from Federal research programs, primarily at the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA). In our current study of aviation research and technology, OTA has found that FAA is making good progress in using the research and development (R&D) resources of NASA, DOD, and other public and private organizations. However, better operational planning and interagency coordination for aviation research are still needed.

My testimony today is based on a study in progress in which we assessed Federal aviation research and technology efforts. OTA began the study in late 1991 when the Chairman and Ranking Minority Member of the House Committee on Science, Space, and Technology requested that we take a comprehensive look at the R&D that underpins FAA's technology and regulatory development programs. The report will be released this Fall. This morning, I will review some study findings on Federal aviation R&D that may be helpful as the Committee reviews transportation funding levels.

WHAT IS "RESEARCH AND DEVELOPMENT"?

The meaning of "R&D" varies throughout government and industry. Using National Science Foundation (NSF) nomenclature, the objective of basic research is to better understand fundamental concepts and observations without specific applications in mind. Applied research seeks to gain such knowledge or understanding to determine how to meet a defined need. Exploring or solving problems in a specific context is therefore targeted, or applied, research. Development, in turn, is the systematic use of research results, directed toward the production of material, devices, systems, or methods. Feasibility demonstration is another component of development, as is engineering. (See figure 1.)

NASA conducts applied research to support its own space and aeronautics program goals, as well as other Federal R&D needs. Focused on integrating new or upgraded technologies into an operational framework, the programs that FAA calls research, engineering, and development (RE&D) generally correspond to what NSF would call development.

WHAT IS AVIATION R&D?

Aviation R&D encompasses the science and technology of air transportation and systems of aircraft operations. Two broad categories of aviation R&D correspond to FAA's key missions: regulatory (safety, security, and environment) and operational (air traffic control—ATC). Aeronautics, a fundamental field underlying aviation, addresses the design and performance of individual aircraft—aerodynamics, structures, propulsion, and control systems.

NASA conducts both aeronautical and aviation R&D; FAA's R&D focuses on aviation, where it provides and uses research results. FAA's responsibility for technology development differs for its regulatory and operational missions. FAA advances its R&D corresponding to safety, security, and environmental regulatory initiatives to the feasibility demonstration or pre-production stage. For the ATC system, however, FAA's role continues through procurement and implementation.

LONG-TERM RESEARCH AND TECHNOLOGY ISSUES DIFFER FOR EACH OF FAA'S MISSIONS

Long-term research issues for aviation safety, security, and environment are primarily scientific or analytical—better understanding of the "problem." Priorities in each area include: safety—improving the performance of complex systems of people and machines (human factors); environment—understanding and mitigating the impacts of aircraft noise and emissions; and security—assessing aviation security threats and vulnerabilities. Much of this research and analysis is conducted outside of FAA. (Table 1 lists particular areas of aviation R&D and the responsible Federal organizations; table 2 compares recent NASA and FAA aviation R&D budgets.) It is important that FAA has adequate in-house expertise to evaluate the findings, apply the information to regulatory or technology initiatives, and identify new research issues.

The long-term needs for FAA's other mission, developing and operating the National Airspace System, are primarily planning and system engineering. Long-term research on new air traffic system concepts and functions is essential. However, timely development and implementation of systems have been the problems, not a lack of fundamental technologies or concepts. FAA-managed projects for ATC often move slowly—to go from concept to operation can take 15 years or longer.

An additional key difference is economics. For aviation safety, security, and environment, the performance of the existing "system" is quite good; gains through new technologies will likely be both small and costly. On the other hand, small improvements in air traffic system capacity or efficiency are technologically feasible and can mean large savings in time and money to aircraft operators and the traveling public.

MORE EFFECTIVE R&D REQUIRES BETTER COORDINATION AND AVIATION COMMUNITY INPUT

If Federal technology efforts for aviation safety and infrastructure are to be more future-oriented, leadership must come from FAA as a whole, not just its R&D sections. FAA's primary focus is on the here-and-now; conducting research, especially long-term programs, has not been a priority. While strong research and technology development efforts by FAA and others are essential to the success of regulatory initiatives and enhancements of the air traffic infrastructure, their application will be limited without the support of FAA regulatory and operating sections.

"Technology push" rather than "operational demand" has driven some aviation research and technology programs in the past. Superb technology is of little use if those responsible for installing and operating it do not see a need for it. What is essential is a clear understanding of the "problems"—for today's systems and for the future—that can then be addressed with directed R&D. FAA's operational perspective, along with the views of the aviation community, is critical to aviation R&D programs, whether or not FAA conducts or funds them. At the same time, however, it is important not to let the "operational" viewpoint dominate R&D programs; good ideas can come from anywhere. Consequently, good communications and coordination between operating and research organizations are crucial to successful technology programs.

I would now like to discuss some steps FAA has taken recently to improve coordination for aviation R&D, internally, as well as with other Federal agencies and private organizations.

INTERNAL COORDINATION AT FAA

FAA has put much focus on reviewing and monitoring of R&D projects by division management and on relationships between the operating and R&D divisions. Although communications seem to be improving, each operating division has a different relationship with FAA's R&D division, and therefore, varying levels of satisfaction that its needs are being met. This may be a factor of the diverse natures of these groups, it may be a function of the Agency being in transition, or it may be a holdover from the past.

The Operational Planning Management Team (OPMT), initiated in 1992 and comprised of upper level career managers at FAA, is promising. OPMT is designed to provide continuity in long-term and strategic planning, operational integration, identification of major issues, and acceleration of decisions. The managers involved in OPMT hope to deal with the problem of FAA's notoriously lengthy implementation process. The Team is looking at implementation of near- and mid-term aviation technology, as well as trying to anticipate what will be coming as far as 20 years down the road. The OPMT process is open to industry participation, though on an as-needed basis. It Is too early to assess the results of OPMT. We would expect to see substantive results from OPMT in the next year or two.

Also, aimed at better internal coordination, FAA issued a directive delineating more comprehensive acquisition guidelines last March. These procedures provide a more detailed method for making procurements, including the identification of mission needs and key decision points.

FAA COORDINATION WITH OTHER GOVERNMENT AGENCIES

Congress has shown increasing interest in cooperation among Federal agencies conducting aviation R&D. The primary advantages of interagency R&D programs include economies of scale, elimination of redundant efforts, and more rapid technology development.

Among its relationships with other Federal agencies, FAA's ties to NASA are strongest. NASA and FAA have worked together since their inception and continue to conduct joint projects. In 1990, the Administrators of FAA and NASA took personal and administrative actions to bolster the connections between the agencies. FAA increased support for its small field offices at NASA Ames and Langley research centers and has established memoranda of understanding (MOU) and agreement in over a dozen technology areas.

Two efforts in planning long-term research stand out: human factors and aircraft noise. FAA and NASA, with strong DOD, academia, and industry advice, published the National Plan for Aviation Human Factors (HF Plan) In April 1991. The HF Plan lays out a 10-year blueprint for establishing and coordinating research programs and transferring operationally useful products across Federal agencies and to industry.

On the issue of aircraft noise, the Aircraft Noise Abatement Working Group of the FAA Research, Engineering, and Development Advisory Committee identified the need for substantial noise reductions by 2000 (on the order of 4 to 6 decibels) to counter the increased noise that would otherwise occur from higher air traffic levels early in the next decade. This study, in part, led to NASA's fiscal year 1994 budget request for the noise reduction element ($30.2 million) of the Advanced Subsonic Technology program. As in most NASA/FAA initiatives, NASA will supply the bulk of the personnel and facility support for this research in human factors and aircraft noise.

As can be seen from table 1, there are needs for coordination of Federal aviation R&D programs well beyond these two encouraging efforts. Even for FAA and NASA, which coordinate aviation research programs and planning at the division level through a formal Coordinating Committee, there is no routine mechanism for budget review of FAA/NASA joint research. For example, different divisions of the Office of Management and Budget evaluate FAA and NASA budgets.

FAA COORDINATION WITH PRIVATE ORGANIZATIONS

The increasing role of commercial communications and computing systems in the air traffic system infrastructure makes public/private partnerships an attractive option for speeding technology development. Federal law permits and encourages agency participation in cooperative R&D agreements.[1] FAA has recently teamed with private industry to test some commercial technologies for ATC functions (examples include: ATC pre-departure clearance delivery via the airlines ACARS data link; automatic dependent surveillance of oceanic flights—United Airlines/INMARSAT).

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[1] 15 U.S.C. 63.

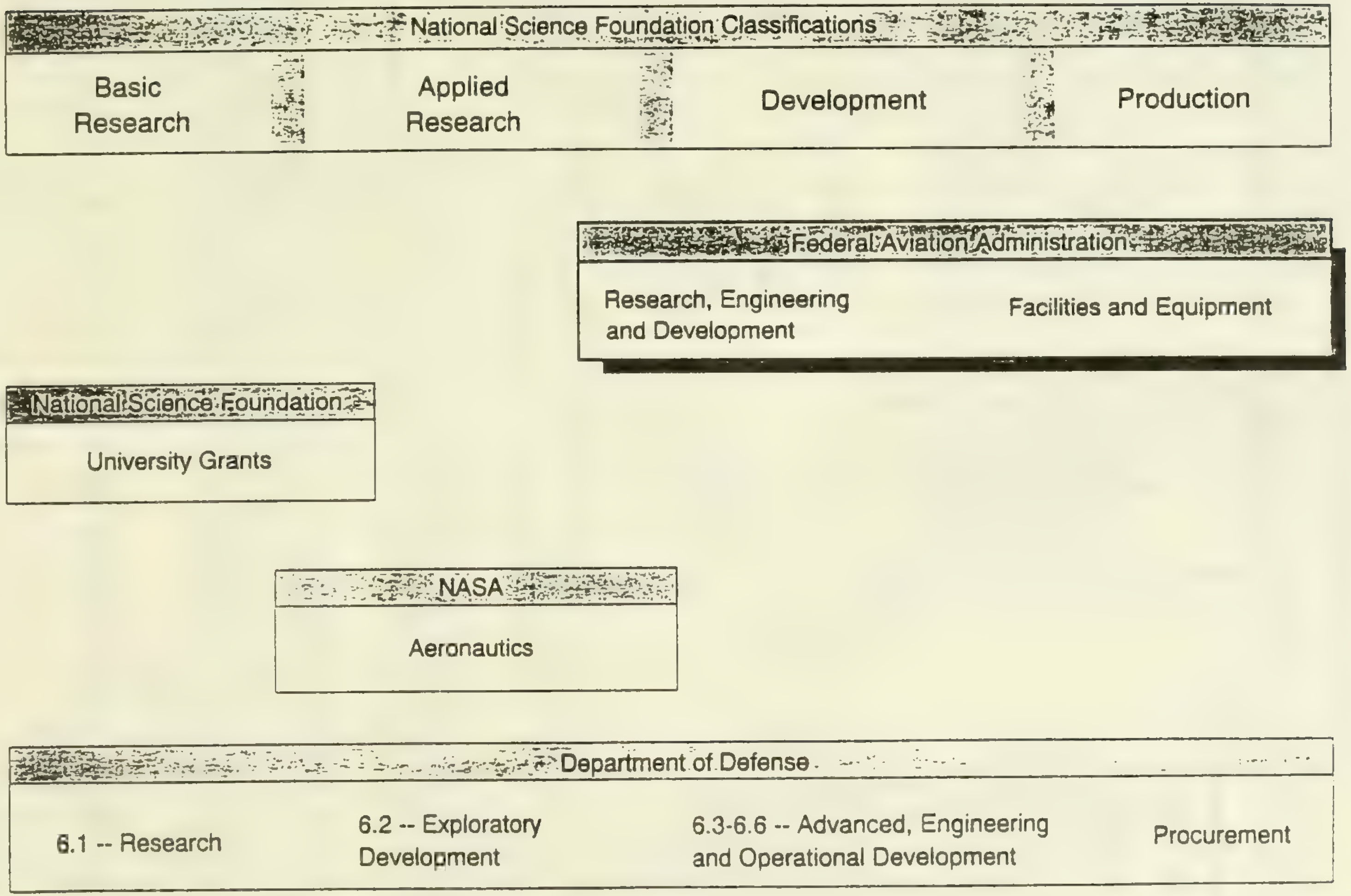
Participants at an OTA workshop observed that such partnerships are most successful when the major customer for the technology is the private sector, not the Federal Government (and where both need the technology at the same time). They cited a limited liability partnership, proposed by FAA and MITRE, to develop a technology critical to future aeronautical digital communication systems as an example that would fit this model. The Federal Government will retain the license to the technology and Federal procurement rules will remain in effect for government purchase of resulting commercial products. Other opportunities for commercial technology development for air traffic systems are in the areas of satellite-based communication and navigation systems and digital communications.

SUMMARY

OTA would like to emphasize for the Committee today the importance of improved relationships among all the agencies and the necessity for leadership and strategic planning, to be sure that the limited resources that are available are used on those problems of greatest difficulty and importance. This has been lacking. We need to ensure that FAA's regulatory and operational needs are understood and integrated into its own R&D programs, and with the more fundamental research plans at other public and private organizations.

It has been a challenge and a pleasure to explore these issues for Congress and we look forward to continuing discussions when our full report on Federal research and technology for aviation is published this Fall.

Figure 1 -- Federal Research and Technology Programs and Terminology


National Science Foundation Classifications
Basic Research
Applied Research
Development
Production
Federal Aviation Administration
Research, Engineering and Development
Facilities and Equipment
National Science Foundation
University Grants
NASA
Aeronautics
Department of Defense
6.1 -- Research
6.2 -- Exploratory Development
6.3-6.6 -- Advanced, Engineering and Operational Development
Procurement

SOURCE: Office of Technology Assessment, 1993.

Table 1 – Federal Aviation R&D Applicable to FAA Missions

R&D Category	FAA Organization	Other Agencies or Organizations
Science/Basic Research	None	NSF
Applied Research		
• Human factors	[see note A]	NASA; DOD
• Aeromedical	CAMI	NASA; DOD
• Aircraft safety (ex: materials, fire)	[see note B]	NASA; NIST
• Explosives detection and mitigation	Tech Center	DOD; DOE labs; FBI; DOE
• Weather	[see note C]	NOAA; NSF (NCAR)
• Environment	[see note D]	NASA; NSF; DOE; EPA
Development		
• Aircraft safety (ex: aging aircraft; cabin safety, catastrophic failure prevention)	Tech Center	DOD; NASA; DOE labs
• Aviation security (ex: detectors, sensors, profiling)	Tech Center	DNA; DOD; DOE labs; CIA; FBI
• Airports and ATC	[see note E]	NASA; DOD labs
• Environment	[see note F]	NASA; DOD
• Weather	[see note G]	NASA; NCAR; NOAA; DOD

NOTES:
A: FAA has not conducted human factors research in house, but has funded NASA research.
B: FAA conducts fire safety research at CAMI and Tech Center; FAA funds NASA and industry materials research, and has funded NIST fire research.
C: No in-house research conducted; FAA funds aviation weather research at NCAR and has joint programs with NOAA.
D: FAA funds noise reduction research by NASA.
E: Limited in-house development effort; FAA sponsors work by MITRE, Lincoln Labs, and industry.
F: FAA develops noise impact models only.
G: FAA funds Next Generation Weather Radar (NEXRAD) system development with NOAA and DOD, and NASA sensor development.

KEY: ATC = air traffic control; CAMI = FAA Civil Aeromedical Institute, Oklahoma City; CIA = Central Intelligence Agency; DOD = Department of Defense; DOE = Department of Energy; DNA = Defense Nuclear Agency; EPA = Environmental Protection Agency; FAA = Federal Aviation Administration; FBI = Federal Bureau of Investigation; NASA = National Aeronautics and Space Administration; NCAR = National Center for Atmospheric Research; NIST = National Institute of Standards and Technology; NOAA = National Oceanographic and Atmospheric Administration; NSF = National Science Foundation; Tech Center = FAA Technical Center, Atlantic City.

SOURCE: Office of Technology Assessment, 1993.

Table 2 – FAA and NASA Research and Development Budgets in Four Mission Areas

Mission	FY 92		FY 93		FY 94 [a]		Issues
	(real year dollars in millions)						
	FAA [b]	NASA	FAA	NASA	FAA	NASA	
Air Traffic System	101.3	18.5	103.1	31.9	117.2	50.6	Capacity, delays, efficiency.
Safety	64.7	15.4	71.8	19.3	73.3	22.2	Accident prevention and survivability.
Environment[c]	4.0	17.0	4.8	19.3	5.4	47.0	Aircraft noise, air quality and climate change, water quality.
Security	31.9	0.0	35.9	0.0	35.9	0.0	Criminal acts and terrorism deterrence, prevention, and mitigation.
Subtotal	*201.9*	*50.9*	*215.6*	*70.5*	*231.8*	*119.8*	
Total	**252.8**		**286.1**		**351.6**		

[a] Request.

[b] Does not include facilities and equipment dollars; does not include management and analysis or innovative/cooperative R,E&D funding.

[c] NASA high-speed commercial transport environmental R&D not included (in millions, $59.9 FY92; $59.6 FY93; $68.5 FY94).

KEY: FAA = Federal Aviation Administration; NASA = National Aeronautics and Space Administration.

SOURCE: Office of Technology Assessment, based on NASA and FAA data, 1993.

RECOMMENDATIONS OF AUGUSTINE PANEL

Senator LAUTENBERG. Dr. Fearnsides, the Augustine panel provided a significant number of recommendations that, if adopted, would change the complexion of aviation research significantly.

I understand that Mitre performs about 400 staff-years of work for FAA in areas such as defining mission needs, cross-benefit studies, and investment analysis.

Therefore, on the basis of your work and experience with FAA's RE&D program, is the panel's study still relevant to FAA's program, and how far does FAA have to go in order to be reasonably in line with the panel's recommendations? Is FAA close or a long distance away?

Dr. FEARNSIDES. Mr. Chairman, as Norm mentioned we had an opportunity to do two reports. One was an early one that we gave out I guess at the end of 1991, late 1991.

And then just recently, we went back and met again as a panel and investigated not only whether our original recommendations were good recommendations, but what efforts that the FAA had made to take some of the recommendations to heart.

I think it is fair to say that the response has been pretty outstanding. Those of us who get to work very closely with the FAA have, in recent months, and maybe going back to a year-and-a-half, seen some very, very good people coming into the FAA from DOD.

There is a very bright, young new satellite program manager. Some of the assistant managers they've brought in to do weather research and development, and the like, are just really increment.

And the connection that has been made earlier today between the capacity or the excess capability that may exist in DOD, and the needs in such programs as air traffic control and IDHS, which is another one, it seems to be being met. The demand and supply seem to be coming together.

The second thing is that I think it is really fair to say that the—I have not seen the level of cooperation in the long time I have been working with the FAA between NASA and the FAA, or between the FAA and DOD that I see now.

The FAA–DOD cooperation on global positioning systems is practically 1 for 1. There is truly intertwining relationships there that I think are a real sense of progress, and a real sense of knowing what has to be done.

So while my testimony suggested that there were some really well defined programs that could be accomplished within that increment that Norm suggested, I think in the rest of the areas as well, airport security, for one, where investments in new technology and investments in speeding up some of the existing ones could really bring notable public benefit.

Senator LAUTENBERG. Is it clear to you what FAA's vision is for its aviation research program? If you could give us your understanding of that vision, and whether you think it is appropriate, given what you know about the issues facing the aviation industry in the next century.

Dr. FEARNSIDES. Yes, sir; let me take vision in two phases. I have to tell you that at the time of the introduction of the NAS plan, it was fair to say that the FAA's vision was that the system was going to be what the system was after the NAS plan was built.

In the last 10 years, we have all learned a tremendous amount, and in particular, in the last year-and-a-half or so, Joe Del Balzo has introduced a whole new approach for systemwide thinking about where the FAA is going, and Marty Pozesky has introduced a whole series of vision papers that begin to put a stake in the ground that is based more on our operational needs, rather than on the availability of technology.

And, indeed, what has happened as a result of that is, is that now that we have seen there have been some delays in the technology, we have some alternatives to meet the operational needs, and this is what led to my discussion of some of the earlier introduction of benefits, like the AERA program or the TATCA program.

Modern system development methods give us an opportunity to do those faster and integrate those into a moving system that the FAA has now, where if you take the automation system, and they have the host program, and then the initial sector suite, and then the eventual complete AAS program. They now can put functions into that moving target, rather than waiting for the end.

Senator LAUTENBERG. One of the things that we heard from Mr. Dopart's testimony outlined where we are in terms of operations and regulations.

Is there a tendency that you saw, as you reviewed FAA's program, to focus more on the operations side, maybe taking some of the attention away from the RE&D programs on the regulatory side?

Dr. FEARNSIDES. No, sir; it certainly is true that if you are an operational organization like the FAA, which, like an airline, for example, has to make everything work every day, 24 hours a day, operations gets a lot of attention. Certainly the regulatory side, safety, has always been the FAA's primary mission, and that gets a lot of appropriate attention.

What I think is happening is that where we used to have really well defined divisions in the FAA between operations, and regulations, and systems development, what is happening now is that they are being merged.

As I heard Kevin's testimony, which I would agree with entirely, the whole stream of system development is now moving to meet the needs of either the regulatory side or the operational side, and that's been a landmark change in the way business gets done.

As a matter of fact, I would go so far as to say that this new approach to system development, which involves the users from the very beginning, and you will recall that my testimony talked about a team that Marty Pozesky caused to happen that triggered this program that I mentioned, that everybody now, General Motors now uses computer-aided designs and computer-aided manufacturing techniques to bring in the customers for their cars, and to design the cars with their customers.

I think as the result of a lot of work that has been done over the last 10 years, the FAA has brought in air traffic controllers, maintenance people, whatever, on the regulation side, and they have really done a good job there. I will go so far as to say they are ahead of DOD.

It has only been since the potential for the DOD downturn that the DOD has really begun to understand the need for simulations and prototypes, and making first-class investments in those areas, and then waiting and seeing about production, until you really see whether or not the users can use these things, based on simulations.

Senator LAUTENBERG. Mr. Dopart, I wanted your response on the focus issue. Do you sense that there is an attitude that says, "OK. We have to get today's work done at the expense of some of the other things," again, like the regulatory issues or R&D?

Is there anything that you see, by way of FAA internal documentation, related to runway development, airport construction, or anything of that nature that you would like to bring to the attention of the subcommittee?

Mr. DOPART. Well, I would say, Mr. Chairman, certainly the operational and regulatory sides of the FAA have not detracted from R&D. I think the main issue is that those sections should actually be more proactive in establishing and making clear what their research and development needs are.

To address your specific questions, there are a number of research programs involved in looking at runway separation, and capacity research has been underway for a number of years.

The next step required is to establish the appropriate operational procedures, including terminal airspace procedures and missed approach procedures for pilots, to make research products into an operational system.

Senator LAUTENBERG. Have you come across instances in which the bias toward air traffic operations might have dominated or diverted attention from a research project?

Mr. DOPART. Well, I cannot think of a specific incident, Mr. Chairman, but, in general, air traffic control is the dominant organization within FAA, and their views hold great weight.

Senator LAUTENBERG. You know, there is a tendency here, and all over, to deal with today's needs at the expense of tomorrow, or especially longer-range programs. And yet FAA is really the single agency in Government that has its finger in long-range developments for a critical part of our society and economy.

Do we have the same qualified management in the RE&D program that we have on the operational side? Does the research development activity get the attention of the people at the very top of the pyramid in the same fashion as the operational folks?

Heaven forbid if there is a runway incursion or something to that effect. I mean that really does concern everybody at FAA when something like that happens, and we want to make sure that safety is taken care of. We sacrifice timeliness in the interest of safety. That is an established condition.

Can one be better at assuring that the RE&D arm of the FAA gets the same kind of attention that those who do the things that one sees every day?

Mr. DOPART. Mr. Chairman, I would certainly say that the R&D section does get attention, and I believe they have strong leadership. FAA's R&D section is the lead organization of that type in the world.

Very few countries fund aviation safety, security, and air traffic control development to the extent the FAA does. FAA is considered the international expert at the ICAO meetings.

On the issue of vision, it comes back to the operating section—air traffic control—and the regulatory section having inadequate vision for the future, in looking at what the operational needs are, and whether or not technology is, in fact, a solution. Then if technology is a solution, which steps are needed to make that technology ready for the field?

Senator LAUTENBERG. The testimony of others indicated that there might be some lack of coordination with other agencies. Dr. Fearnsides' testimony talked about what we have learned in the last 10 years involving the NAS plan, now called something else.

They were very costly lessons. I will not second-guess and say those lessons should not have been learned that way. I would have hoped that we did not have to spend the billions of dollars that we spent over those years, which did not really advance the improvement of the aviation system very much.

But to make sure we understand what you are saying, does the RE&D part of FAA get all of the interest that it could have?

Mr. DOPART. Certainly.

Ms. CARSON. May I comment on this?

Mr. DOPART. Please.

Ms. CARSON. As Kevin pointed out, there is a very extraordinary and fine commitment to research in the safety and related areas at FAA. And I am sure that it could be reinforced. More resources are always useful. I think perhaps our testimony may have created a misleading impression, and I would like to try to restate it.

Our point here is to try to reinforce and support what we understand to be a very promising shift—change is perhaps too strong a word—but a shift at FAA to include the whole horizon for aviation research. You really have a very sound sense of what the operational needs will be, look ahead so that you are doing what we might call mission-driven research. We really know what kind of problems we have to solve here, involve the people who need the solutions, drive the research along the right track, and then when we get the products, the products are wanted, and useful, and the appropriate products.

We think it is a very healthy trend that is occurring at the FAA, and we hope it can be supported in the future, that they will make best use of all the resources. We did not mean to suggest that the security and regulatory side was not being very competently run, Senator.

Senator LAUTENBERG. Well, I did not draw that conclusion at all.

Dr. FEARNSIDES. May I add to that, Mr. Chairman?

Senator LAUTENBERG. Sure.

Dr. FEARNSIDES. There are two points. One is the issue of R&D getting sufficient attention, and the other is what we have learned, and how much it has cost us to learn over the last few years.

The first is that R&D is getting a lot of attention now, and not only is it getting attention, but it is getting attention in this more modern context I mentioned, where there is quick evolution to product improvement, rather than long, drawn-out specific technological wishes or optimisms.

For a long period of time, and especially after the NAS plan was first introduced, there was almost no good R&D being done in the FAA, for a variety of reasons. That was because——

Senator LAUTENBERG. When was this?

Dr. FEARNSIDES. This was right around 1981, 1982, in those areas. There were a lot of reasons for that, but the main one was that there had been a period of investing in technology and investing ideas, and when all of a sudden the FAA went from a $250 million F&E program, to a $2 billion F&E program, the number of people, the number of opportunities for upward mobility for the staff and all, moved in the direction of the NAS plan, and I think it is fair to say that the talent in the R&D organization went down.

I think it is also fair to say that the kinds of investments that were being made are the ones, for several years after the NAS plan was introduced, all of the focus was there, very little focus was on the long term, and that is one of the reasons that there is such a great need to catch up.

Now, just very briefly, on the question of how much it has cost us to learn, what has happened in the last 10 years is that the technology has allowed us finally to be able to afford to use simulations and rapid prototype things, and those kinds of evolutionary approaches to system development.

When the NAS plan was established, we did not know any other way of doing it than the way the Defense Department does it and the way NASA does it. If the NAS plan had started 5 years earlier, we may have been OK, because we could have met some of these needs when they were needed. If it had started 5 years later, we would have done it differently.

Senator LAUTENBERG. I appreciate your comments. I do not want to debate it with you, but the technology of 10 years ago, of course, was quite different from that which is available now.

However, to use the expression, as I looked at the hits and misses, there were a lot of misses. There were missed target dates, even using the technology available. There were missed budgetary commitments, even with the technology that was available.

If we look at that program, of and by itself, and by your own admission just now, you say that it is different today, suggesting that we were not quite as prepared then. We did not have all the skills available. Again, the only reason I want to look back is to make sure that we handle tomorrow better.

Dr. FEARNSIDES. Yes, sir.

Senator LAUTENBERG. The fact is that there are very few who would stand up and defend what took place at the FAA over the decade of the eighties, and say that all of it was based on the technology change.

There was a lot happening that was not dealt with as quickly as it might have been. We changed systems coordinators, as you know, and that had nothing to do with the technology cascade that was taking place.

So, again, we want it to be right. We cannot recover those funds that were used at that time, because that is the way it is. But, nevertheless, I am pleased to hear that there is a lot more faith in FAA's ability to manage these kinds of programs than existed before.

I would like to ask you this, Dr. Fearnsides. Do you think that RE&D will have an impact on the economy and jobs base that we have?

In what areas do you think that FAA's research will have the greatest impact, airline manufacturing, in reference to airframes, engines, et cetera, avionics, weather detection? Where do you see it? Please do it in fairly short form, if you can.

Dr. FEARNSIDES. Yes, sir; all of the above, plus the—and let me not talk about the system development industry first, but the airline industry. Probably the first place where system development activities will have an impact is on the airlines, and making the airlines be able to lower their costs.

But let us take this system as a whole. Right now there is an IBM system in Taiwan, being built in Taiwan. There is an IBM system in England. There are Raytheon and Unisys systems in Germany.

There is a Raytheon system in Norway. Hughes is in Canada. Hughes is bidding in Australia. The United States is the world leader in air traffic control technology, and U.S. manufacturers and U.S. system developers are preeminent around the world.

So then I could take all of the others, computer manufacturers, with some of the ideas that are being done in artificial intelligence, and the like, the weather system—Westinghouse has just announced new airborne radar, and the like. So all of avionics, there is a substantial impact on all of those, Mr. Chairman.

Senator LAUTENBERG. Alright. Well, we thank you very much, all of you, for your testimony. We now would like to call upon the third panel. From the FAA, Mr. Joe Del Balzo and Mr. Marty Pozesky, who had his accolades put on the table before he got here. But that doesn't mean you can rest easy, you know that.

PANEL III

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF JOSEPH M. DEL BALZO, ACTING ADMINISTRATOR

ACCOMPANIED BY:

MARTY POZESKY, ASSOCIATE ADMINISTRATOR, SYSTEMS ENGINEERING AND DEVELOPMENT
HARVEY SAFEER, DIRECTOR, FAA TECHNICAL CENTER
GEN. ORLO STEELE, ASSISTANT ADMINISTRATOR FOR SECURITY

INTRODUCTION OF WITNESS

Senator LAUTENBERG. Welcome, Mr. Del Balzo. We are happy to see you. We invite you to give your summarized testimony. We have heard quite a bit this morning, but we will have a chance to discuss it after you make your statement. So please proceed.

OPENING REMARKS

Mr. DEL BALZO. Mr. Chairman, thank you. We are always happy to appear before your subcommittee. We are pleased to appear this morning to talk about FAA's fiscal year 1994 budget request for Research, Engineering, and Development.

With me this morning is Marty Pozesky. Marty is the Associate Administrator for Systems Engineering and Development; Harvey Safeer, who you know well, the Director of the FAA Technical Center; and Gen. Orlo Steele, the Assistant Administrator for Security.

We are seeking in fiscal year 1994 a budget total of $250 million. It is about an 8.7-percent increase over our 1993 level. And the budget request, I believe, presents a balanced program aimed at achieving greater safety for aircraft and the air traffic management system, increased capacity to handle passengers and cargo, improve aircraft performance, lower operating costs for all users of the airspace, and added safeguards to reduce the impact of aviation on the environment.

I wanted to make several points this morning. First, I believe that we have a plan that builds upon the 15 recommendations advanced by FAA's R&D advisory committee review panel.

You heard from Mr. Augustine this morning. We have a plan for research and development that concentrates on the use of academic, scientific, and industry resources, to achieve major capacity safety and efficiency gains. A plan that I believe will have major impacts on the competitiveness and profitability of the U.S. aviation industry at home and abroad, and will also serve to improve the efficiency and cost effectiveness of the FAA, a plan that also takes advantage of the capabilities that are available in other civil and military laboratories, and other Government organizations.

I think it is worth taking the time to talk a little bit about what it is we do specifically with NASA, since it was the subject of conversation this morning.

There is an FAA–NASA coordinating committee that is chaired by Mr. Pozesky. NASA has an advisory committee, as we have an advisory committee. FAA is a member of the NASA advisory committee, and NASA is a member of our advisory committee. NASA has two significant laboratories, one at NASA Ames, and one at NASA Langley. FAA has four people located at each one of those laboratories, to ensure that we take advantage of the capabilities that are available in those two laboratories, and that we, in fact, exchange technologies.

There is a university program that we manage with MIT, Princeton, and Ohio University. It is a joint university program that is managed jointly by FAA and NASA. We are directly involved with NASA on several key programs, CTAS, we talked about that this morning, noise, Wake Vortex, human factors, and NASA plays a critical role in our civil R&D program. We have actively sought NASA's input on our aging aircraft R&D program.

So I believe that there is no duplication between the work that goes on between FAA and NASA. I believe that we are well coordinated, and that NASA is directly involved, not just on day-to-day R&D projects, but in advanced planning of programs in their formative stage.

The second point I would make is that we have a plan for fiscal year 1994 that will include measurable goals. We heard from GAO this morning how important that is. Some of those goals are: We will ensure the system capacity will meet demand, our goal is to reduce weather-related delays by 15 percent by the year 2005, accommodate a projected doubling of oceanic air traffic demand, and reduce civil aviation fatality rate by at least 10 percent by the year 2000. And the list of goals goes on and on. I believe that, in fact, we have a research and development program that is goal oriented.

The third point I would make, the plan that we have is mission-driven. It is not technology-driven. We talked about vision this morning. We have a plan, an R&D plan, that began with a vision, not a technology vision, it began with an operational vision. What are the operational requirements for a vibrant aviation system for the 21st century? And given that operational vision, we then developed an R&D plan to support that vision. FAA, along with its partners in the aviation community, must now aggressively execute that plan, to meet the demands of the 1990's, and to prepare for a new era of air transportation in the coming century.

We talked about the excitement generated by an airport. I would like to spend just 2 minutes talking about the excitement and enthusiasm generated by a focused R&D program.

The use of a Global Positioning System, I think, will wind up resulting in a revolution in the way air traffic management is done in the 21st century. Satellite technology is obviously high on our list of R&D priorities. Automation also stands high on the list.

There are projects like CTAS, and we have talked about that several times this morning. When fully operational, they will provide aides to controllers to handle higher levels of traffic, with greater efficiency and safety. And incidentally, CTAS was not invented here [NIH]. It was not invented by FAA. It was invented by NASA, and is being developed jointly by NASA and FAA.

This summer we will be using for the first time an innovation we are calling HARS, a high-altitude route system developed under our operational traffic flow management project.

For flights over the ocean, we have an oceanic automation program that will provide data link photomatic-dependent surveillance for direct communication between pilot and controller. Today at 31 airports in the United States, pilots can receive predeparture briefings over a digital data link, instead of the old voice system.

We have so many other projects on a smaller scale that I will not talk about this morning, but are just as exciting. We are pursuing programs that are aimed at reducing runway incursions, and improving safety at the top 100 airports.

OPENING REMARKS

There is another source of concern which demands everybody's constant attention. Mr. Chairman, you especially know the issue of environmental safeguards. It is essential that we accurately assess aviation's impact, and identify a reasonable and responsible course of action to address it. We are requesting funds to address this issue on two fronts, to continue studies, aimed at reducing aircraft noise and engine emissions, and the second is energy conservation.

We have other projects in the area of aviation safety. Our fiscal year 1994 budget request seeks funding to better understand the effects of aging on aircraft structures and systems, and can translate that information into more effective design, inspection, and maintenance requirements.

The third thrust of our research is human factors. Despite all of our advanced technologies, statistics still point to human error as a probable cause in at least 65 percent of all fatal civil transport accidents. The fiscal year 1994 budget request seeks funding for an aggressive, well-coordinated program of research into the main sources of human error.

Finally, there are serious issues in the area of airport pavement design. Durable long-life pavements are important in controlling the costs of operating the national pavement system in the United States. In the heart of FAA's pavement R&D program, beginning in fiscal year 1994, and continuing for the next 5 to 10 years, will be major efforts in developing new design methodologies.

Before I close, I would like to say just one word about our technical work force. We do have the capability to conduct an aggressive research program, but in the last 2 years we have scouted colleges and universities around the country to find the best and the brightest science graduates. You will find these best and brightest science graduates everywhere. Mr. Chairman, I know that you personally have seen them at our Technical Center at Atlantic City. You will find them also in our Washington headquarters, and you will find them especially in our R&D program.

We have balanced youth and enthusiasm with seasoned professionals that we have recruited from within the Government and from industry. We have established a visiting researcher program, which provides opportunities for people in Government, universities, and nonprofit organizations to work side by side with some of the best in the business. Superimposed on the talent base is product-focused R&D leadership, leadership that is now being provided by Mr. Pozesky and Mr. Safeer.

So in closing, Mr. Chairman, although traffic delays currently cost passengers $7 billion each year, and add $3 billion to the cost of operating aircraft, with the current system, these costs will increase by 50 percent within 10 years.

The programs included in this budget request are directly aimed at reducing these delays and improving the economic viability of our Nation's airlines. We must invest in research and development now to ensure an economically viable air traffic control system in the future.

Mr. Chairman, that concludes my statement. We will be happy to respond to any questions you may have.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Mr. Del Balzo. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF JOSEPH M. DEL BALZO

Mr. Chairman and Members of the Subcommittee: I am pleased to appear before the Subcommittee to discuss the Federal Aviation Administration's fiscal year 1994 budget request for Research, Engineering and Development. Accompanying me this morning are Martin Pozesky, the Associate Administrator for Systems Engineering and Development, Harvey Safeer, the Director of the FAA Technical Center, and Orlo Steele, Assistant Administrator for Civil Aviation Security.

Before I proceed, I would like to acknowledge the many contributions this Subcommittee has made to advance safety and enhance civil aviation. I would also like to add that the high standards set by this Subcommittee have helped us achieve one of the most clearly focused R&D programs that we have had in over a decade.

To expand this program in fiscal year 1994, we are seeking a total of $250 million, an 8.7 percent increase over our fiscal year 1993 level. This budget request presents a balanced program aimed at achieving greater safety for aircraft and the air traffic management system; increased capacity to handle passengers and cargo, improved aircraft performance; lower operating costs for all users of the airspace; and added safeguards to reduce the impact of aviation on the environment.

I would like to add that our R,E&D program builds upon the 15 recommendations advanced by the FAA's R&D Advisory Committee Review Panel. This report places the improved efficiency of the air traffic system at the head of its list of aviation priorities.

The FAA, along with its partners in the aviation community, must move to meet the demands of the 1990's and to prepare for a new era of air transportation in the coming century.

Initial projections of benefits from the R,E&D program indicate that the projects included in the fiscal year 1994 budget will translate into direct future benefits to the airlines of $1 billion to $3 billion a year in reduced aircraft operating costs.

The use of the Global Positioning System offers us virtually unlimited opportunities for improvements in safety, capacity, service flexibility, and operating efficiency. The impact of satellites, combined with other technologies like data link, could add up to tremendous savings.

Exploring the rich potential of satellite technology occupies a prominent place on our list of R&D priorities. Automation also stands high on the list.

Projects like Center-TRACON Automation Systems (CTAS) are expected to decrease delays by increasing arrival capacities. When CTAS is in place, starting in 1994, controllers will have improved capabilities to sequence aircraft in near optimal arrival flows. Once the system is fully operational, controllers will have aids available to handle higher levels of traffic in the terminal area with greater efficiency and safety. The payoff from CTAS will be additional capacity and associated operating fuel savings at those airports which today are choked with congestion.

The Advanced Traffic Management System (ATMS) incorporates better prediction and modeling techniques with tools for air traffic managers that will help minimize delays and other adverse impacts of congestion.

This summer we will be using, for the first time, an innovation we're calling HARS—for High Altitude Route System, developed under our Operational Traffic Flow Planning Project. HARS uses dynamic programming to select the most fuel-efficient high-altitude route between pairs of cities, taking into account winds and temperatures at various altitudes.

For flights over the ocean, the FAA's Oceanic Automation Program will provide data link and Automatic Dependent Surveillance (ADS) for direct communication between pilot and controller. Improvements in display technology and man-machine interface for digital communications will allow controllers to meet the ever increasing traffic demand of oceanic travel. Combined with existing automation programs such as Dynamic Oceanic Tracking System (DOTS) and Oceanic Display and Planning System (ODAPS), these programs provide opportunities for the introduction of advanced air traffic management services which otherwise would not exist.

For the past ten years, the FAA has pursued an aggressive research program to employ digital communications in a dynamic air traffic control environment. Now that research has paid off.

At 31 airports in the United States, pilots can receive pre-departure briefings over a digital data link instead of the old voice-based system. Digital communications are twice as fast and far less prone to error. They cut down on controller workload by a half or more. By the end of 1994, we plan to extend this service to 60 airports.

Recently, we completed a much-needed data link version of the Automatic Terminal Information Service [ATIS] which provides similar improvements in the flow of information to pilots during the busy terminal approach phase of flight.

Statistics indicate that nearly one-fourth of all domestic operational errors are caused, either directly or indirectly, by mis-communications. The potential to improve safety by reducing, even eliminating, many of the errors caused by mis-communications is one of the most compelling reasons to implement digital communications. Data Link services for every phase of flight will be in place by the end of the decade.

Another reason is cost. One of our air carriers told us that communications-related delays cost it more than $300 million each year.

We are also aggressively pursuing programs that are aimed at reducing runway incursions and improving safety at the top 100 airports. These programs combine radar technology with a series of incrementally more sophisticated automation capabilities (AMASS and ASTA) to achieve a dramatic reduction in runway incursions. Prototypes of these systems are now operating at San Francisco and Boston Logan airports respectively. Projects such as these will ensure that growth in aviation demand is met without compromising safety.

There is another source of concern which demands everybody's almost constant attention. That is the issue of environmental safeguards. It is essential that we accurately assess aviation's impact and then identify a reasonable and responsible course of action to address it. We are requesting funds to address this issue on two fronts: The first is to continue studies aimed at reducing aircraft noise and engine emissions. The second is energy conservation.

Given today's business, the introduction of new technologies to protect the environment, reduce operating costs, increase capacity, and eliminate delays earns a very high priority from the FAA.

In FAA, safety is the number one concern in aviation. In fiscal year 1994, roughly 44 percent of our R,E&D budget will be applied to research projects directly aimed at improving safety. Among these, three areas stand out. The first is aircraft safety, in particular, research centered on aging aircraft and occupant survivability. The second is system security technology, where the principal focus is on weapons and explosives detection and aircraft hardening. The third safety area is human factors research.

Many aircraft in the civil air transportation fleet now exceed the operational life originally foreseen by the manufacturer and others soon will. The continued safe operation of these aircraft is a priority for us at the FAA. With the support of this Subcommittee, we are pursuing a dynamic program to study the phenomena of aging aircraft.

Other projects in this category are designed to improve safety and occupant survivability during postcrash and in-flight fires.

Passenger security is yet another critical category of safety research. As the bombing the World Trade Center so tragically demonstrated, terrorism continues to be a threat. Our priorities continue to be the hardening of aircraft components against damage from explosives, and the development of prototype systems to screen passengers, checked luggage, and carry-on baggage.

The third thrust of our safety research is human factors. Despite all our advanced technology—statistics still point to human error as a probable cause in at least 65 percent of all fatal civil air transport accidents. The percentage for general aviation is higher yet. Our fiscal year 1994 budget request seeks funding for an aggressive, well-coordinated program of research into the main sources of human error.

Before I close, I would like to say a word about our technical work force. I disagree with those who say we no longer have the capability to conduct a viable research program. Experienced leadership is in place which has dramatically refocused R,E&D efforts in the past three years. We have affixed responsibility with program managers and made them accountable for program results. In addition, we have scouted colleges and universities around the country to find the best and brightest science graduates.

We have balanced their youth and enthusiasm with seasoned professionals which we have recruited from within the Government and from industry. We also have established a visiting researcher program which provides opportunities for salaried employees in government, universities, or non-profit organizations to work side-by-side with some of the best technical and scientific professionals in aviation. And, through our University Grants Program, we have access to some of the most talented and knowledgeable researchers in this country.

Overall air traffic delays currently cost passengers 7 billion dollars each year and add 3 billion to the cost of operating aircraft. With the current system, these costs will increase by 50 percent within 10 years. The programs included in this budget request are directly aimed at reducing these projected delays and improving the economic viability of the nation's airlines. The leveraging that this program can do in terms of the overall benefits it can provide the airline and aviation related industries is significant. We must invest in Research and Development now to insure an economically viable air traffic control system in the future.

Mr. Chairman, this concludes my prepared statement. We will be happy to respond to any questions you may have at this time.

Thank you.

FAA RESEARCH EFFORTS

Senator LAUTENBERG. Now, you talked about the talent that you have been bringing in, and you heard my comments, and you have been there long enough to have seen what has happened over the years, in terms of RE&D programs.

You know what has happened with the NAS plan, and, again, I will say the same thing now as I said before, that my reminder is not intended as recrimination.

However, it does, nevertheless, raise an alert, as the result of that experience, to say, "Well, what are we going to do differently in the future?"

Obviously, talent is more available. The job market has shifted. There are people who are content to exercise their abilities within government maybe more so than some time ago, when the competition in the job market, the private sector, was more aggressive than it is now.

How has FAA changed its research effort to address some of the panel's recommendations? What do you offer by way of examples?

Mr. DEL BALZO. I think the example that I would give is one that deals with the work force capability. We have, in fact, had the luxury, because of the downturn in the economy, to recruit outstanding people into the R&D program. Our challenge now is to hold on to them, and to continue to recruit the same kind of talent in the future. That comes by the excitement generated by an R&D program, and this committee can have a lot to do with that. That comes with consistent funding and support for an aggressive R&D program.

The challenge of the Research and Development programs that we are now embarking on I think will be tremendously satisfying to the young people that come into our organization, satellite technology, breakthroughs in communication, and higher levels of automation. These are exciting opportunities for anyone who wants to join an aggressive R&D program. So that is one thing we have done. We have brought in the right talent at the junior level, the middle level, and at the senior management level. We have focused our R&D program in a way that is now user-driven, mission-oriented, product-oriented. There is significant support in FAA to continue the thrust that Marty Pozesky and Harvey Safeer have started.

R&D MANAGEMENT

Senator LAUTENBERG. How about the management side of things? Has anything changed structurally within FAA that says we are going to focus on these areas with the highest level of energy we can muster? Has anything changed?

I know these are very responsible folks with whom you work. I know Harvey and I know Marty Pozesky's work. It is very well done.

But what physical changes were made within the organization? Was it just filling in for the bottom or the middle?

Mr. DEL BALZO. No; what we did not do this time is change boxes to achieve an end result. The classical response to getting something done in a government organization is moving the boxes. We did not move the boxes. We did not change the boxes. We changed attitudes. We changed the way people relate to each other.

In the past, we had R&D programs that were done in a vacuum. We never talked to anybody. R&D people never talked to the users inside of FAA. FAA never talked to the users outside, our customers. Mr. Chairman, I tell you, that has all changed.

Senator LAUTENBERG. How does that dialog take place, through the panel?

Mr. DEL BALZO. It takes place in several ways. I will ask Mr. Pozesky to talk about what it is that he has done to establish the Government industry partnership in an R&D program.

STATEMENT OF MARTY POZESKY

Mr. POZESKY. Thank you. Mr. Chairman, I point to three things. No. 1, we have our R&D plan that we produce each year. We are proud of the fact that this is a plan that is user-driven. When we sit down at the top management, and it is done at the very top management of the FAA, and we go offsite, and we spend 2 or 3 days dealing with priorities, it is the users, the air traffic controllers, the airlines, the operators who defend these programs, who drive these needs. It is not just the researchers trying to sell their wares. This plan, for 2 years in a row now, is operator pull. It talks about satellite technology. It talks about research that supports their goals.

The other point I would mention is R&D, I believe, today is relevant. People plan on it. People plan for success. People anticipate it. The goals we establish, both for our R&D and our F&E program are the same. In our F&E planning, you are beginning to see a more direct linkage. In fact, there is a whole part of our F&E budget which accommodates nothing but translation of our R&D program into our F&E.

The other point I would mention is we make good use of our R&D advisory committee to help us understand what we do not know, and where we need to go look to do a better job. If the opportunity presents itself, I will talk about the work we are doing with NASA and DOD.

Always more can be done, of course, but we have begun to work with them as a partnership, trying to change the culture. And as you see with one of the demonstrations we have with us today, the work we are taking advantage of is not joint work on all cases. It is work literally done by NASA, which we are now translating to FAA.

So while joint work is good, it does not always have to be joint for us to make use of it. We are trying very hard to break down those not invented here [NIH] barriers, and I would offer the CTAS, which is in this year's budget for development as well as implementation, as an example of where we have broken down that NIH barrier, and literally made use of NASA work in ATC.

AIRCRAFT SITUATION DISPLAY SYSTEM

Senator LAUTENBERG. One of the things that has happened, and, again, I sense a new commitment, perhaps described as a new spirit or appetite for RE&D, but for 3 years, we put in our report a request that the Aircraft Situation Display System be shared or exposed in some way to the airlines.

Now, we had to do it over a long period of time, because, obviously, it was not, as we saw it, being done at the time of the initial request 3 years ago. What has changed is that now everything is on full operational mode. It is these kinds of things that better coordination might have been helpful to include the airline companies in the review of what was taking place as we developed that display system.

Mr. DEL BALZO. Mr. Chairman, let me tell you what has changed. Let me first tell you why it was so difficult for us to provide air carriers with the aircraft situation display information. It was difficult because we were afraid. Our operational organizations were afraid that if we shared information that we had with the air carriers, they would use it to second guess what it is that we do every day to manage the system. So, in fact, you directed us to do that, but you did not direct us to use it with them. I will tell you that what is happening today is we are using that situation display with the air carriers jointly, and involving flight dispatchers in actually planning the day's traffic.

I would encourage you to ask that question of the ATA representatives when they testify before you as to what that relationship is like today compared to what it was 2 years ago. No one had to tell us to provide another piece of information to the air carriers. There is a demonstration in the back of a program that will give air carriers information that we have access to, that they have never had before, that will make them much more efficient in the planning of the day's travel.

Senator LAUTENBERG. I must tell you I am moderately shocked by your response. I told you, in language, to direct the agency to move ahead with this thing, and you fall back on a semantic defense that says, "Well, you did not tell us to use it with them." Mr. Del Balzo, it is shocking coming from someone at your level of experience and management.

It should have been done. And the one thing I want to be assured of now is that we are not just talking to one another, we are giving some direction, and I want a response that says, "OK. Forget about everything in the past, because things are hunky-dory right now." Well, I don't buy it. I want to tell you, I want to see the results.

That kind of a lame response, "You did not tell us to use it with them," I must tell you, I find it——

Mr. DEL BALZO. Mr. Chairman, I apologize. I think I said it wrong, or it came out wrong. What I meant to say was that you directed us to provide the displays to the air carriers, and we did that. It took us longer than it should have, I admit that, but we followed your directions. What I was suggesting was that there was no——

Senator LAUTENBERG. Did you follow it in the first year that I directed it?

Mr. DEL BALZO. I think we intended to. We did it, I believe, after direction——

Senator LAUTENBERG. We are getting into a verbal debate here. You intended to. Why did it not happen, Mr. Del Balzo?

Mr. DEL BALZO. It took time. It took time to develop the system in a way that could be turned over for them to operate with us.

Senator LAUTENBERG. Did we invite them in to participate in its development? Did we invite them in for their commentary? Did we invite them in to provide recommendations?

Mr. DEL BALZO. After receiving your direction, yes, sir. Absolutely.

Senator LAUTENBERG. The first year, second year, or third year?

Mr. DEL BALZO. After receiving direction, the first year. I believe that is true.

Senator LAUTENBERG. Did we do it the second time because we liked doing it, or was there——

Mr. DEL BALZO. Plus, it was taking longer than we thought it would. I think that is the reason.

Mr. SAFEER. We were working with them, but the actual turnover took 2 years. There were technical problems in turning it over to the industry.

RE&D OBJECTIVES

Senator LAUTENBERG. It was shown to me rather proudly. I remember that I was surprised that the displays, as I remember them, the monitors, were showing only parts of the system, and the question about how we all get into one place to look at it effectively was one that the response was, "Well, we are working on that." It took a long time, to say the least. Let us go on.

The budget request that the RE&D program list eight ambitious objectives, that I am not certain that aviation RE&D can accomplish by itself. For example, you proposed, and you point out in your testimony, the human intervention, or failure, as a large part of the problems for the fatalities that happen.

You propose now to reduce the fatalities by 10 percent, and increase airport capacity by 20 percent by 1999 These are commendable objectives. But if you do not accomplish them in the time that you are given, what are we to contemplate—program failure, resource inadequacy?

Are you willing to say that the RE&D budget that is proposed has a high level of guarantee that these objectives will be accomplished by that time?

Mr. DEL BALZO. Not unto its own. I think what we presented for fiscal year 1994 was an integrated program that strikes the right balance between what it is that we need to do in research and development, what we need to do in terms of our capital investment plan, and what we can do in terms of airport grants. Put that all together, and I believe that the funding that we are asking for in fiscal year 1994 is adequate to meet those goals.

RATIONALE FOR CHANGES TO RE&D OBJECTIVES

Senator LAUTENBERG. Among the 10 primary objectives, research objectives, in your RE&D budget request, all but one changed significantly from the current year. These changes range from a decrease of 72 percent on one, to an increase of 20 percent. The average change among the 10 activities is about 20 percent.

Why did the management and analysis activity grow by 20 percent, while the capacity in the air traffic management technology activity decreased by 11 percent, or why did the human factors lose 7 percent, and airport technology gained 8 percent, just to put these things into focus?

Mr. POZESKY. Mr. Chairman, let me say that the management part of it grew because we are trying to do a better job of using simulation to understand the future needs. That was not fully contained in last year's budget, and that is why it grew. One of the recommendations of the Augustine Report was that we do use simulation to do this, modeling and analysis, and that is contained in this budget.

There is also mechanical difficulty here, because although there is a chapter in our plan labeled Air Traffic Capacity, we have allocated our plans along the 10 chapters that the R&D Advisory Committee recommended. When we talk the generic overall system capacity, you have to add up pieces of individual chapters. And if you do it that way, it has actually grown significantly. We will be happy to provide that crosswalk to the staff. We think it is necessary. And unfortunately, I think that is just a result of the way we divided our budget up into 10 areas. For example, satellites very much a capacity issue, is not contained in the capacity chapter, the way the budget is put together. It is contained in the communications and navigation chapter.

Senator LAUTENBERG. Alright. If you will provide that information for the record, we will——

Mr. POZESKY. Fine.

[The information follows:]

The following tables identify that portion of program funding by budget line item which either directly or indirectly support research and/or development efforts which will lead to gains in system capacity; this includes both airport and airspace capacity. Direct support is defined as research which results in the development of new systems, procedures, or standards. Indirect support includes programs which provide capacity planning, analysis, or tool development (models).

As shown below, overall funding for programs supporting system capacity have increased by 10 percent from fiscal year 1993 to fiscal year 1994, while during the same period the total R,E&D budget grew by only 8.7 percent, from $230 million to $250 million, respectively.

While some of the budget lines shown include all of the requested funding, it should be noted that in most cases only a portion of the total line is applicable to system capacity. The dollars displayed are only those that support work which will lead to gains and/or improvements in system capacity.

PROGRAMS PROVIDING DIRECT SUPPORT TO SYSTEM CAPACITY

Line item	Budget line title	Fiscal year— 1993	Fiscal year— 1994
2a	Air traffic management technology	2,843	4,976
2b	Oceanic automation program	3,230	6,683
2c	Terminal ATC automation	11,531	11,393
2d	Runway incursion reduction/tower auto	4,909	4,400
2e	System capacity, planning/improvements (includes capacity improvements only)	5,889	7,328
2g	Vertical flight	5,500	3,222
3a	Communications	8,828	8,995
3b	Navigation	16,217	17,930
3c	Surveillance	2,144	2,250
5a	Airport technology	1,946	650
9a	Environment and energy	375	436
	Total	63,412	68,263

PROGRAMS PROVIDING INDIRECT SUPPORT TO SYSTEM CAPACITY

Line item	Budget line title	Fiscal year— 1993	Fiscal year— 1994
1a	Management and analysis	2,577	3,375
2e	System capacity, planning/improvements (includes capacity planning only)	3,876	3,831
2h	Modeling and simulation	9,719	11,814
3a	Communications	....	249
	Total	16,178	19,269
	Total dollars supporting system capacity	79,590	87,532

SIMULATION AND MODELING

Mr. SAFEER. May I comment on that?

Senator LAUTENBERG. Yes, sir.

Mr. SAFEER. The work that we are doing at the Technical Center on simulation now, the national simulation capability, is also covered under that first chapter. This pays for the R&D part of those facilities as well. Once again, it is the operation, use of the facilities, and more simulation being done.

Senator LAUTENBERG. I assume that funds from sources other than RE&D are spent on modeling, simulation, et cetera. In a time when we have the equipment, computers, et cetera, to handle complex modeling, such as one for the national economy, hundreds of variables, what are the major obstacles to developing a model of the national airport and airspace system?

Mr. POZESKY. The major obstacles, Mr. Chairman, are really trying to understand how the various automation systems interact comprehensively. Earlier you received testimony about an effort we had done at the FAA, to try to understand how we are doing, if flow control fits together with en route and terminal automation. We know that that is a lot more complicated these days, but we are beginning this year to fully simulate that at the Technical Center and at Mitre. This is really the first year, in my opinion, at least, that we really believe we truly understand that interaction. A year ago I would have told you that we still do not know how to do that.

This year I would tell you that we are not there yet, but there is a light at the end of the tunnel. If the simulations we are now doing at the Technical Center and at Mitre pan out, I think we will overcome that, and have the missing ingredient to do a full-scale simulation.

Mr. SAFEER. I think to answer your question directly, however, you asked about modeling, and not simulation.

Senator LAUTENBERG. Modeling. Right.

Mr. SAFEER. And the modeling——

Senator LAUTENBERG. I threw simulation in there.

Mr. SAFEER. The difficulty with the modeling is being able to identify the relationships between the different elements of the system, and then getting the parameters correct. We model GNP, and we still do not know what is going to come out one day to the next. But we are——

Senator LAUTENBERG. No excuses, Mr. Safeer.

Mr. SAFEER. I am just saying, I am trying to describe the difficulty. They have been doing that for 30 years. We have been doing this for, I guess we are in our second year now. We are working with universities. We are working with massive parallel processing computers. We have access to CRAYS. We are working, but we are a long way off from being able to use a model to do what we now have to do with simulation.

LIMITED LIABILITY CORPORATION

Senator LAUTENBERG. A bill has been introduced to provide for enhanced cooperation between the Federal Government and the commercial aircraft industry in this country in aeronautical technology research, development, commercialism, and for other purposes. Does FAA's administration support this effort?

Mr. DEL BALZO. Yes, sir; we do. We think that bill is directly applicable to some of the things that we would like to do in our research and development program, and some of the things that we would like to do in a Capital Investment Program as well.

It is worth taking a minute to talk about one particular example that Marty Pozesky is leading now with Mitre Corp. in the field of aeronautical telecommunications.

Mr. POZESKY. Mr. Chairman, one of the things we are trying to do with our R&D program as an example of getting closer to the industry, is to become much more sensitive on the industry pull. We need to focus on the way that R&D can help the industry.

We are proposing what we call a limited liability corporation, which is a new constructive Government-industry partnership focused on moving R&D technology more rapidly and directly to the airlines. This would focus on data link. This would involve the airlines getting together with the Government to form a corporation. The Government would use the Cooperative Research and Development Act to fund that corporation with R&D funds for the mutual benefit of the Government's design of a data link system for the Government's ground application as well as the airline design of that same data link system for airborne implementation.

So we would have a single consortium, if you will, doing the research, and the airline manufacturers, as well as the Government, could draw from that research. Each group could go their ways, being able to buy the hardware they need, and being sure that the standards are identical, and the hardware is identical. The example I would use is the videotape recorder thing, where there was both a beta and a VHS, and in the fullness of time, the VHS became the standard. We have to be sure we do not do that again with data link, and we go off in different well-meaning directions. So we are proposing this Government-industry partnership to develop the standards cooperatively, and move the technology rapidly.

I must say to you that the airlines have not 100 percent agreed, but they have shown a great deal of interest at the very senior levels of some of the airlines for this idea.

Senator LAUTENBERG. Do you look at the questions of antitrust?

Mr. POZESKY. Yes, sir; that is one of the considerations of the legal construct of this. The CRDA, Cooperative Research and Development Act, deals with that, and allows us to do that without significant antitrust concerns.

Senator LAUTENBERG. It sounds like the right way to go.

Mr. SAFEER. Yes; we are working with the aviation industry right now on the aircraft hardening program, where we have a cooperative research and development agreement with the Aerospace Industries Association, who, in turn, are using the services of Boeing, Lockheed, and McDonnell Douglas to work on the aircraft hardening, to try to do the analysis that we cannot do ourselves.

CLOSING REMARKS

Senator LAUTENBERG. Well, we are going to close. Once again, and I will state this for the record, to be absolutely clear, we have an incredible system within the FAA that manages a very complicated, highly energetic aviation industry in our country.

It is not always as timely as I would like to see it, but there is a high degree of comfort and belief that the system is very, very safe. We want to improve it.

We would like to see the same kind of result, I may be extending myself a little bit, in the highway traffic as we see in aviation. I am not sure what the comparison might be, but I think that we would find that aviation, on balance, has a better safety record, for the amount of miles per person traveled than would the highway traffic. If I prove to be wrong, we will have to change the record. But we are going to look at that anyway.

But it is a remarkable system. And I know that all of us want to improve it as much as we can. We barely have time on our side, I think, in terms, not of improving our domestic system, but making sure that the industry that is involved in that system, not just the airlines, not just the radar, or the communications manufacturers, but all of those involved in the aviation business preserve the uniqueness of the American system, and try to make sure that we stay ahead of everybody else.

That is also part of your agenda, though it is rather subliminal, compared to the safety issues. But all of that comes into play, and, of course, if one has to be concerned about reaching the capacity of the system, it seems to me that we are over that level now, not in terms of safety, but in terms of delays, and in terms of lost time.

You pointed out something in your testimony, Mr. Del Balzo. I think you said that it cost $7 billion to the passenger population for the delays, and $3 billion for the aviation industry for delays. Well, I believe that we can improve that, as you do. You set a fairly ambitious target, and we would like to see it measured annually, to see how we are doing with it.

But, also, there are places around the world where there seems to be an advantage over our system, some of the all-weather operations that we see in some other countries, landing in way below our minimums.

I do not know whether that is equipment in the airplane itself, or just on the ground, but there is obviously a merge of things that permit those kinds of operations to take place.

So we are not being totally, I hope, disingenuous when we focus on the problems that are my responsibility. It is an excellent agency, populated with very talented people, and we want to encourage you to do even more and even better.

SUBMITTED QUESTIONS

With that we thank you. We will submit additional questions to be answered for the record.

[The following questions were not asked at the hearing, but were submitted for response subsequent to the hearing:]

FEDERAL AVIATION ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

DEVELOPMENT AND ENGINEERING FUNDS IN TWO ACCOUNTS

SENATOR LAUTENBERG: In addition to the $250 million for Research, Engineering and Development requested for fiscal year 1994, FAA's budget contains a line item called "Engineering, Development, Test and Evaluation" in the Facilities and Equipment account, for which you request $606 million for fiscal year 1994.

What is the relationship between these two accounts, both of which seem to include engineering and development? Is there redundancy between these programs?

ANSWER: There is no redundancy between the two accounts. Projects with high technological risk are funded in the R,E&D appropriation until Key Decision Point (KDP) #3. Low risk projects, where a rapid progression to KDP #4 is expected, are directly budgeted into the F&E account. It is also possible to have enhancement work ongoing in the R,E&D appropriation while acquisition of the same basic system in ongoing in the F&E account.

SENATOR LAUTENBERG: Have you considered aligning your total R&D funding so that it is more like DoD's treatment of this kind of work? What are the pros and cons of the DoD arrangement for accounting for research activities, compared to the FAA way?

ANSWER: We have considered the DoD approach but find that it would not accommodate major developmental efforts such as the Advanced Automation System (AAS) and Voice Switching Communications (VSCS) programs. Large developmental programs such as these would normally be funded in the R&D budget under strict DoD definition criteria.

As the current R&D budget is quite small relative to the F&E and Operations (OPS) accounts, significant shifts in funding requirements for programs such as AAS or VSCS would subsume other major R&D priorities. Per Senate Report 102-148 and House Report 102-156, FAA has established clear criteria for the funding of OPS, F&E and R,E&D requirements.

SENATOR LAUTENBERG: We have heard from the Augustine Panel a recommendation to increase FAA's R,E&D program from its current level to somewhere around $500 million. Could FAA adequately address this recommendation by shifting programs and corresponding funding from the Facilities and Equipment account to the agency's R,E&D activity?

ANSWER: No, as FAA's F&E and R,E&D requirements are not duplicative the Augustine Panel recommendation cannot be accommodated by the shifting of programs and corresponding funding. The Augustine report is focused on the Panel's perception of the R&D need under the existing framework of agency activity. Equally, the report does not recommend a shifting of agency priorities between accounts, nor would FAA concur with that recommendation.

AUGUSTINE REPORT

SENATOR LAUTENBERG: What has been FAA's response to the Augustine Report? Are you treating the recommendations as binding, or advisory?

ANSWER: The "Augustine Report" is the formal product of the R,E&D Plan Review Panel of the R,E&D Advisory Committee. Notwithstanding, FAA considers the findings and recommendations critical strategic input into its R,E&D program. FAA has actively pursued adoption of the Advisory Committee's recommendations - all of which have been addressed and incorporated into its R,E&D program.

SENATOR LAUTENBERG: Did you agree with all of the panel's recommendations, or were there some that you could not accept? Which recommendations are not acceptable to FAA and why?

ANSWER: The Augustine Report's major findings recommend that FAA's highest priority be system capacity; historical R&D funding levels are not adequate and should be increased; users should establish requirements; system engineering should be strengthened; R&D products should be accelerated to the field; should use non-traditional support resources; and should support the National Plan for Aviation Human Factors. FAA concurs with the report's recommendations and has made significant progress against each.

SENATOR LAUTENBERG: What impact, if any, on your budget do you believe that the Panel's recommendations would have? If the impact is significant, how do you propose to incorporate the Panel's suggestions into your program?

ANSWER: As previously stated, FAA has actively pursued adoption of the Advisory Committee's recommendations--all of which have been addressed and incorporated into its R,E&D program. The Panel's recommendation supports a total FAA R,E&D program at $500 million by 1996. FAA's view is more conservative, given the state of the national economy.

Funding perspectives aside, FAA has the infrastructure in place to accommodate a more aggressive R,E&D program. This point is evidenced by strengthened system engineering and streamlined acquisition processes. User requirements are more well defined, and management, planning and control processes have been improved.

RESEARCH GOALS AND PRIORITIES

SENATOR LAUTENBERG: The budget justification for your R,E&D program lists eight ambitious objectives that I am not certain that aviation R&D can accomplish by itself. For example, you propose to reduce fatalities by 10% and increase airport capacity by 20% by 1999.

While these are commendable objectives, if you do not achieve them in the time you give yourself, what are we to think? That your program failed? Would you want your R,E&D budget to depend on accomplishing these goals?

ANSWER: The goals we have set for our R,E&D program are what we are striving to accomplish. They reflect the relative priorities that we place on the research that we are undertaking. The potential benefits of our R&D program are such that if we are only partially successful, we will still achieve significant improvements in safety and airspace capacity. These improvements will reduce the fuel and operation costs of the airlines, resulting in a significantly improved economic situation in future years.

SENATOR LAUTENBERG: Most of your research goals seem to be not only ambitious but do not seem to be achievable by your research program alone. Is it possible to establish goals for program elements at lower levels so that the research effort has clearly measurable milestones that you could both take credit for and be held accountable?

ANSWER: The benefits associated with our research goals assume the implementation of the projects in either the F&E budget or regulatory process. Our goals are broken down into the individual projects which contribute to them, and the progress against the goals is tracked.

SENATOR LAUTENBERG: Two weeks ago, Acting Administrator Joe Del Balzo stated he would try to implement the aspects of FAA's Advanced Automation System that would most benefit the airlines and air travellers, namely the advanced en route automation (AERA) feature that would allow airlines to choose their own cost effective flight routes.

Do you have research efforts underway that, if completed ahead of schedule, would help field the AERA portion of the Advanced Automation System? If so, what are these projects?

ANSWER: Yes, data link and the Center TRACON Automation System (CTAS). Data link will provide the medium to transfer AERA messages, along with increasing controller productivity, and controller to pilot communication accuracy. The CTAS will provide fuel efficient arrival descent profiles which will be used by AERA.

SENATOR LAUTENBERG: Do you plan to accelerate work on these projects to enable AERA to be implemented earlier than planned, as asked for by the ATA and endorsed by Mr. Del Balzo?

ANSWER: Data link and CTAS are high priority programs within FAA. Our systems engineering organization is presently conducting an analysis to determine what windows of opportunity exist in the AAS program to incorporate data link, CTAS and AERA functions earlier.

SENATOR LAUTENBERG: Your R,E&D Plan states that it is a snapshot of a continuous process that is not predictable but does have a clear vision of where it is headed. Your current plan, however, does not describe that vision or provide a sense of your priorities.

Would you please share with us your vision of the future for aviation R&D?

ANSWER: In 1990, the FAA developed a high-level vision of the future air traffic management (ATM) process. The principal objective was to provide a common view among FAA and airspace users on the direction and goals of U.S. and international initiatives to enhance system capacity and the safety and efficiency of flight operations. The vision is documented in a concise document developed by Mr. Martin T. Pozesky entitled, "Concepts and Description of the Future Air Traffic Management System for the United States" (copy enclosed). This document has been coordinated within the U.S. and international aviation communities and describes where "we are headed" in our R,E&D initiatives related to the ATM process.

The vision is an ATM process that meets user needs for system capacity, flexible flight profiles, separation assurance, aviation information and the ability to accommodate all operators and aircraft types. The document describes the goals for the future system, the principal design considerations for its development, and foreseen system operations in the various flight regimes including navigation and landing, communications, surveillance, weather, and collision avoidance services.

Our vision in the areas of environment and energy, aircraft safety, system security and airport technology focuses on a safe and secure air transportation system that is cost effective, affordable and compatible with national environmental concerns.

The R,E&D program develops system capabilities and relevant technologies to meet user and national needs.

SENATOR LAUTENBERG: A contractor has a 5-year, $25 million contract to develop certification regulations and design an air route infrastructure for tiltrotor aircraft.

Why isn't FAA doing this itself? Is this normal to contract out for this kind of work so far in advance of actually having the aircraft for which the infrastructure is being developed?

ANSWER: The FAA awarded contract number DTFA01-93-C-00030 on March 2, 1993. This contract covers all vertical flight research including helicopters and advanced vertical flight technology aircraft such as tiltrotor and tiltwing aircraft. It has a base period and three options totaling five years. The ceiling is $25 million over the full five years, and is considered a maximum planning value. The Government is not required to obligate any funds under this contract. Funds are obligated when specific "task assignments" are awarded. These task assignments contain the specifics for products, schedules, milestones, and funding. Actual vertical flight program work is subject to annual FAA management review, OST review, and Congressional budget determinations. When the FAA determines that internal and other government resources are not available to accomplish the work, or when special expertise is needed which is not available to the FAA, it issues task assignments under this contract. Infrastructure work under the contract is applicable to helicopters as well as tiltwing and tiltrotor aircraft. Advanced technology helicopters now moving into the system have significantly improved operating characteristics, and many are instrument flight rules certified. Research is needed for the FAA to determine how best to accommodate these advanced aircraft in the National Airspace System (NAS). Work applicable to the tiltrotor aircraft is being planned on a schedule commensurate with its expected introduction into the NAS.

SENATOR LAUTENBERG: Where does the money come from for this effort?

ANSWER: This work is funded under the Vertical Flight Program, item 2g of the 1994 Research, Engineering and Development budget request.

RESEARCH PRIORITIES IDENTIFIED BY THE AUGUSTINE REPORT

SENATOR LAUTENBERG: The Augustine Report highlighted six specific research areas needing priority attention and, presumably, additional funding. These were airport system capacity, national simulation capability, prototyping, security of data systems, spaceborne assets, and human factors.

In the year and a half since the report was issued, what specific changes have you made to accommodate added emphasis in these areas? Can these changes be measured, either as a percentage of your existing program, or in absolute dollar terms?

ANSWER: FAA has actively pursued adoption of the Advisory Committee's recommendations. Most have been addressed and incorporated into the R,E&D program. Specifically, the agency has focused on system capacity as a principal priority. Approximately 35 percent of the fiscal year (FY) 1994 R,E&D budget request or $87.5 million is aimed at capacity improvements. This is a 10 percent increase in capacity-related expenditures from FY-93 levels. The agency has established a national simulation capability and increased its funding for simulation and modeling by over $2 million compared to FY-93 levels. Similar emphasis has been placed on aviation human factors, ($355 thousand increase from FY-93), and on communications, navigation, and surveillance systems, including satellites ($3.6 million increase from FY-93 levels).

SENATOR LAUTENBERG: One of the panel's recommendations suggests providing modest sums of discretionary funding throughout industry, academia, and government for the purpose of encouraging innovation. If you agree with this proposal, how much have you or would you grant as a percent of your current program? Are there specific areas where you believe that discretionary funds would be most beneficial?

ANSWER: FAA has focused on encouraging innovation from all sources--public and private. As examples, in the past 2 years the agency has awarded some 51 aviation research grants to academia and other nonprofit organizations, established a center of excellence on partnership with Rutgers and Georgia Tech., and has approximately 40 cooperative research and development agreements completed or in process with industry. Upwards of $20 million for discretionary R,E&D in our innovative, cooperative research, and grants program areas is projected. This represents 8 percent of the FY-94 budget request.

SENATOR LAUTENBERG: In addition to the principal recommendations in the panel's report that require the attention of senior FAA managers, the panel made a series of more detailed but unpublished comments dealing with specific aspects of FAA's research program or the projects in that program. Could you provide examples of these second tier comments and discuss the actions you have taken in response to them?

ANSWER: The panel did not collectively provide FAA with unpublished comments. Several panel members did individually recommend several actions including increased funding for airport pavement research and starting a wake vortex research program. The agency has since increased airport pavement research funding and reinstituted a research program to seek capacity improvements under modified wake vortex separation standards.

COORDINATION WITH PRIVATE AND PUBLIC ORGANIZATIONS -- PRIVATE SECTOR COORDINATION

SENATOR LAUTENBERG: Bills have been introduced to provide for enhanced cooperation between the federal government and the U.S. commercial aircraft industry in aeronautical technology research, development and commercialization, and for other purposes.

Where in your R,E&D budget do you currently provide for such cooperation? How much is currently budgeted?

ANSWER: The Innovative/Cooperative Research budget item (#10A) provides funding for the FAA's Office of Research and Technology Applications, the agency's focal point for Innovative/Cooperative Research program activities. Specific programs include: Technology Transfer, Aviation Research Grants/Centers of Excellence, Small Business Innovation Research, FAA/NASA Joint University, Independent Research and Development, FAA/NASA Cooperative, University Fellowship and Transportation Research Board.

- In FY 1994, $4.725 million is budgeted for Innovative/Cooperative Research programs under budget line item 10A.

- Additional support for programs included within the Innovative/Cooperative Research budget line item is voluntarily provided from other programs which benefit directly from research. In FY 1994, the Aviation Research Grants/Center of Excellence and Small Business Innovative Research programs will receive approximately $15.0 million and $2.5 million, respectively, from participating program.

SENATOR LAUTENBERG: What amounts have been budgeted in the past? What have been the results of such cooperation in the past?

ANSWER: Prior year budgets for Innovative/ Cooperative Research Programs are as follows:

FY 1992 - $3.419 million
FY 1993 - $8.397 million*

* Note: Includes $3.984 million of prior year congressionally directed funding carried over into FY 1993 ($3 million Aviation Research Grants/Center of Excellence, $984 thousand National Aviation Institute).

Additional prior year support for programs included within the Innovative/Cooperative Research budget line item was also vertically funded from other R,E&D program offices as follows:

Project Funds Provided For	FY 1992 Actual	FY 1993 Estimates
Aviation Research Grants/COE	$4.4 million	$12.0 million
Small Business Innovation Res.	$1.6 million	$ 2.4 million

The following summary typifies cooperative efforts initiated through research grants: In FY 1993, a $1.6 million research grant was awarded to the National Institute of Aerospace Studies and Services, Inc., (NIASS) in Washington, DC, for research into methods to predict the effects of internal bomb blasts on current aircraft. This research effort involves major participation from U.S. manufacturers of wide body commercial aircraft, whose lead designers and engineers will provide expertise to NIASS on current commercial aircraft. NIASS is a nonprofit corporation affiliated with the Aerospace Industries Association.

SENATOR LAUTENBERG: Do you believe that you need more funding in this area for you to have a more productive relationship with industry regarding aeronautical technology research?

ANSWER: Our relationship with the U.S. industry is quite productive. This relationship cannot always be measured or assessed in budget items alone. For example, cooperative efforts forged with industry elements in a number of working groups have been formed as part of advisory committee activities. These include cooperative research on aging aircraft, security technologies, and capacity improvement initiatives. We are presently exploring other avenues for greater industry/FAA cooperation. This includes the potential formation of limited partnerships between government/industry consortia. The airline industry, for example, is currently considering an FAA proposal to form such a partnership in the research and development of a common digital data-link communications network.

SENATOR LAUTENBERG: Please provide for the record a listing of the "program areas" in which you receive support from MITRE Corporation and the corresponding annual funding levels for each area?

ANSWER: For FY 1993 the following R,E&D "program areas" (by budget line item) will receive contract support from MITRE. The projected obligations by program areas for FY 1993 are shown below.

R,E&D Dollars in Thousands

Budget Line	Title	Amount
2a	Air Traffic Mgmt. Tech.	$1,640
2b	Aircraft Technology	170
2d	Capacity Planning	685
2e	Modeling and Simulation	2,762
3a	Communications	1,322
3b	Navigation	1,927
3c	Surveillance	303
	Total	$8,809

COORDINATION WITH PRIVATE AND PUBLIC ORGANIZATIONS -- FEDERAL AGENCY COORDINATION

SENATOR LAUTENBERG: Related to the issue of industry coordination is the issue of intra-governmental coordination? This is also the subject of the Augustine Report's tenth recommendation, which suggested that FAA should "maximize and leverage the synergistic benefits" of other research organizations. In this regard, would you tell us what portion of your program, in terms of number of projects and amounts of your budget, is done jointly or cooperatively with other governmental groups? And would you share some examples of this research with us?

ANSWER: FAA currently has agreements and research activities in place with 36 public or nonprivate laboratories. These activities total over $56 million in single and multi-year funds. Examples of activities with these laboratories include air traffic control automation, aviation security technologies, aircraft safety such as aging aircraft and non-destructive testing, and airport pavement research.

SENATOR LAUTENBERG: Are there net benefits of this kind of coordination? Do you have examples?

ANSWER: There are substantial benefits to utilizing the resources of external federal laboratories. Utilization of these laboratories eliminated the need for extensive capital outlays for laboratory construction.

Additionally, the FAA is able to either complement its expertise or take advantage of the unique capabilities that the other Federal laboratories possess. Such cooperation enables the FAA to leverage its R,E&D budget in various program areas, facilitating product development. Examples of public sector coordination include development of the Terminal Air Traffic Control Automation (TATCA) advisories to controllers, initiated by NASA; prototype development of an aviation weather forecast tool by the Department of Commerce's Forecast Systems Laboratory; and research to evaluate and predict deterioration in aging aircraft by Wright-Patterson Air Force Base.

SENATOR LAUTENBERG: What potential do you believe exists for more of this kind of research?

ANSWER: FAA believes there is potential for expanding its present substantial cooperative research activities with other government organizations. We are currently surveying a number of federal laboratories to assess applicability of on-going research to civil aviation areas and to initiate new starts which support FAA's research goals.

MISSION NEEDS/JUSTIFICATION OF RESEARCH AREAS

SENATOR LAUTENBERG: What is the relationship between the Facilities and Equipment "mission need statements" and the R,E&D Plan?

ANSWER: A mission need statement (MNS) is not inherently related to a specific appropriation - they are "a statement of operational capability required to perform an assigned mission or to correct a deficiency in an existing capability to perform the mission". Mission needs can be fulfilled through R,E&D, F&E and/or operational programs and associated funding.

SENATOR LAUTENBERG: Do "need" statements have to be approved before the projects get into the research plan?

ANSWER: Yes. All programs require FAA "sponsor" approval before they will be included in the budget planning process. For programs leading to acquisition, the Department of Transportation has recently issued an order which requires specific approval of mission need statements based upon the dollar threshold and scope of the effort. FAA anticipated this requirement and revamped its R,E&D planning process for the 1993 R,E&D Plan and associated FY 1995 R,E&D budget submission. All R,E&D programs and projects must now be supported by an approved mission need statement. For prior fiscal years this was not required, but the new planning process has influenced the FY 1994 R,E&D budget submission.

SATELLITE TECHNOLOGY

SENATOR LAUTENBERG: Because of a satellite or Global Positioning System's (GPS) ability to efficiently route aircraft, estimates are that satellites will save airlines

1 percent in fuel costs and 2 percent in flight time, for a total of $200-$300 million per year. In addition, because satellite systems are more accurate than long-range radars, it might be possible to reduce the distances separating aircraft at high altitudes from five miles to one mile and save the costs of maintaining and buying long-range radars.

How long has FAA been funding GPS technology? Can you give us a synopsis of this program at FAA, what the current policy is toward providing this technology to foreign countries, and what milestones we should look for in the near future?

ANSWER: FAA has remained abreast of the DoD GPS program since its inception. A Satellite Program Office was established in 1990 and separate funding for GPS technology began at that time. The objective of the FAA Satellite Program Office is to achieve early operational use of GPS for all civil aviation navigation needs; oceanic, en route, terminal, non-precision and precision approach. The current policy towards providing this technology to foreign countries is to provide the GPS Standard Positioning Service (SPS) for the foreseeable future, with no direct user charges, and provide a 6 year notification of intent to terminate the service. Near term milestones include supplemental use of GPS for en route operations through non-precision approaches by the end of 1993, special use private (not federally funded) Category I precision approaches by 1995, and Category II/III feasibility determination by 1995.

SENATOR LAUTENBERG: What new research is FAA planning to help reduce the cost of this technology so that it can be adopted by the industry?

ANSWER: No additional FAA sponsored research is necessary to reduce the cost of airborne GPS equipment. Industry is aggressively pursuing the development of low cost avionics to compete in an international market. The FAA is working to ensure that the standards to which that equipment is built are in place to support these industry efforts. FAA sponsored research for a wide area differential GPS is being aggressively pursued.

SENATOR LAUTENBERG: How much in current RE&D is FAA funding in this area? How many projects does this represent?

ANSWER: The FY 1993 FAA R,E&D budget for Satellite Navigation is $15.1 million. This money funds 7 major project areas and 24 subprojects plus 8 GPS related international agreements.

SENATOR LAUTENBERG: You aren't asking for much of an increase in this important program. Could you accelerate development milestones with additional funding in the Satellite Navigation Program?

ANSWER: The budget request is adequate to accomplish GPS R,E&D program milestones. Should additional funds be made available we would do more parallel and concurrent research and development activities with industry.

Examples of such activities might include; early installation of GPS equipment into existing aircraft (with major airframe manufacturers), and multiple research activities for precision approach applications. The Category III R&D program, for example, might include parallel testing of pseudolites, Mode-S, and kinematic carrier phase differential GPS technologies. Additionally, further investigation could be done into low-cost atomic clocks and enhancements to ionospheric models to improve GPS positioning accuracy.

SENATOR LAUTENBERG: If DoD's global positioning system eventually comes under civilian control, how much will it cost to maintain it?

ANSWER: DoD currently maintains GPS and the FAA does not have access to that information. However, the cost to maintain the system should be about the same as present should GPS come under civilian control.

SENATOR LAUTENBERG: The Pentagon deliberately distorts all GPS signals, reducing the efficiency of commercial receivers to 100 meters accuracy. This is done to prevent use of the GPS signals by unfriendly forces. U.S. military receivers carry an unscrambling code, allowing accuracy to within 16 meters.

If DoD were to provide the unscrambling codes to allow commercial receivers to obtain accuracy information to within 16 meters, is that accurate enough for use as a CAT II/III precision approach aid?

ANSWER: No. Sixteen meters is not accurate enough for CAT II/III precision approaches. Category II signals in space accuracy requirements are; 5.2m horizontal, vertical 1.7m; category III accuracy requirements are; 4.1m horizontal, 0.6m vertical (2drms).

SENATOR LAUTENBERG: If such signals are made commercially available, how would we prevent enemy forces from using GPS as an accurate navigation and targeting aid against our own troops?

ANSWER: Use by enemy forces of the 16 meter accuracy level, Precision Positioning Service (PPS), if it were commercially available, has been voiced as a national security concern by DoD officials. Recently, the Secretaries of Transportation and Defense agreed to examine the operational, technical and institutional implications of the accelerating civil demand for GPS services. To implement their agreement they established a Joint DoD/DOT Task Force to identify, address and formulate consensus resolutions to the issues resulting from expanded civil use. The Joint Task Force is currently in operation and will prepare and submit a report to the Secretaries in November 1993, describing options considered, providing recommendations, and suggesting implementation actions. Potential commercial availability of PPS is an issue that will be addressed by the Joint Task Force.

SENATOR LAUTENBERG: The FAA budget justification for MLS indicates that, due to congestion and FM radio frequency interference, by the Year 2000, less than 50 percent of the required precision approaches for 10 major metropolitan areas could be satisfied by ILS. Further, the "FAA Satellite Navigation Program Master Plan" published in February 1993 indicates operational use of GPS for CAT II/III approaches will not be available until the Year 2005.

Will the timing of your GPS research and MLS development and testing be sufficient to guard against the occurrence of a 5-year gap between precision approaches supplied by ILS and the potential availability of GPS for use as a precision approach tool? What are the key milestones in that timing?

ANSWER: The FAA Satellite Navigation Program Master Plan dated February 15, 1993, indicates that the FAA will determine technical, operational, and institutional feasibility of using GPS for Category II/III precision approaches in 1995. It does not provide an operational date for Category II/III. It does state that by 2005, there will be enough Federally provided CAT I GPS capabilities that ILS receivers for CAT I precision approaches will not be required in the aircraft. The anticipated availability of GPS as a Category I supplemental system in 1998 could begin to allow the replacement of some ILS's used for Category I precision approaches making more frequencies available for Category II/III installations. This will require that aircraft must carry both ILS and GPS equipment during this transition period.

SENATOR LAUTENBERG: The FAA asked the Radio Technical Commission for Aeronautics (RTCA) to determine how best to integrate satellite navigation with land-based systems in use today. RTCA made several recommendations in October 1992.

Where does FAA stand on these recommendations, particularly in terms of coordinating with DoD and foreign aviation authorities?

ANSWER: In response to an FAA request the RTCA established a broadly representative Government/Industry Task Force to formulate consensus recommendations on satellite transition and implementation strategy. The membership of the Task Force reflected significant representation of both DoD and foreign aviation authorities thus enabling a high degree of coordination and significant input from those sources in formulating the recommendations. Additionally, the FAA has established an internal automated RTCA recommendation status tracking system, identified an office of primary responsibility for each recommendation and is periodically updating the status of each recommendation.

SENATOR LAUTENBERG: Why is the FAA waiting until mid-1996 to begin the 3-year process of developing operational performance standards for wide area differential GPS?

ANSWER: The FAA is not waiting until mid-1996 to begin the 3-year process of developing operational performance standards for wide area differential GPS. Work is presently underway in RTCA to develop Minimum Operational Performance Standards (MOPS) to be completed in 1994 and in the Satellite Operational Implementation Team for implementation.

SENATOR LAUTENBERG: If determined to be "feasible", how long beyond 2005 might it be before Category III qualified GPS could be deployed on all Category III runways in the U.S.?

ANSWER: The potential use of augmented GPS for Category I, II and III precision approach and landing operations is currently being researched within the FAA. The preliminary nature of current research results does not allow a definition of the hardware and software that might be needed for Category III operations. Thus, the delay beyond 2005 for implementation of "Category III qualified GPS on all Category III runways in the U.S." cannot be reasonably estimated at the present time. A credible deployment time estimate must await a reasonable definition of the hardware and software to be deployed.

SENATOR LAUTENBERG:Have you defined the equipment required and estimated what a Category III qualified GPS landing system might cost? Please provide that analysis based on your past experiences and best estimates to date.

ANSWER: The FAA has not yet determined the feasibility of using GPS to satisfy Category III precision approach requirements. The feasibility study will be completed in 1995. When the feasibility is determined, cost analysis can begin.

SENATOR LAUTENBERG: What is your best estimate of the costs, based on your experience with other landing systems, of Category III GPS avionics? Your estimate should reflect the cost of ensuring the avionics will be able to determine the accuracy and integrity of the signals received from the requisite satellites.

ANSWER: The FAA will be in a position to estimate the cost of GPS Category III avionics once GPS Category III feasibility is determined in 1995.

AIRPORT IMPROVEMENT PROGRAM -- FAA'S NATIONAL SIMULATION CAPABILITY

SENATOR LAUTENBERG: I assume that funds from sources other than R&D are spent on modeling. Please provide a history of the funding from all sources over the last 5 years for developing this national simulation capability and list the programs under which this work is being done.

ANSWER: The summary of program funding from FY 1990 through FY 1994 follows:

Dollars in Thousands

Appro	FY 90	FY 91	FY 92	FY 93	FY 94
R,E&D	3,379	4,082	4,200	5,377	7,300
F&E	2,106	1,250	2,277	2,831	300
Total	5,485	5,332	6,477	8,208	7,600

R,E&D By Program

NASPAC	2,363	.....	.....	.....	.....
SCD	850	.....	.....	.....	.....
SCEP	166	.....	.....	.....	.....
NSC	.....	4,082	3,700	3,842	3,500
SATNAV	.....	.....	.....	1,500	.....
TATCA	.....	.....	.....	.....	1,600
ADL	.....	.....	.....	.....	2,200
ATMS	.....	.....	.....	35	.....
ACT	.....	.....	500	.....	.....
Total	3,379	4,082	4,200	5,377	7,300

F&E By Program

SEI/ MITRE	2,106	1,250	393	831	300
AAS	.....	.....	1,884	.....	.....
ADL	.....	.....	.....	2,000	.....
Total	2,106	1,250	2,277	2,831	300

NASPAC -National Airspace System Performance Capability
SCD -System Concept Definition
SCEP -System Capacity Enhancement Planning
NSC -National Simulation Capability
SATNAV -Satellite Navigation
TATCA -Terminal ATC Automation
ADL -Aeronautical Data link
ATMS -Advanced Traffic Management System
ACT -FAA Technical Center
SEI -Systems Engineering and Integration
AAS -Advanced Automation System

FAA COMPLIANCE WITH AVIATION SAFETY RESEARCH ACT

SENATOR LAUTENBERG: Why do you still not include cost and staffing data in your plan as required by the Aviation Safety Research Act of 1988?

ANSWER: Cost and staffing data for FAA are provided annually in its budget submission to Congress.

QUESTIONS SUBMITTED BY SENATOR SASSER

SENATOR SASSER: Approximately 70% of aviation accidents are caused by human error, although weather is cited as a major contributing factor. The FAA indicates that it "hopes to reduce human error by 50% by the year 2000". Advanced automation will fundamentally change the role and responsibilities of the air traffic controller.

In anticipation of the changing role of the air traffic controller, what specific human factors research will address (a) modifications in the training requirements for new generation controllers, and (b) retraining of the current air traffic control work force?

ANSWER: The FAA presently has no research program directly addressing training for the Advanced Automation System. However, extensive research on training requirements for advanced automation systems has been accomplished by the Office of Air Traffic Program Management in parallel with the development of these systems. Particular attention was paid to the human-computer interface. Currently, state of the art simulation training systems are under development to assist in transition training for the terminal, en route, and tower cab environments. These simulators will provide initial and supplementary training for the new and current controller work force.

SENATOR SASSER: Do you anticipate that advanced automation will impact the staffing needs of the overall air traffic control work force?

ANSWER: The arrival of advanced automation is not expected to have an impact upon the staffing needs of the air traffic control (ATC) system. Although controller productivity is expected to increase, there will be an associated increase in traffic demand; thus airspace assigned to ATC sectors will remain essentially the same and so will the number of controllers required to staff those sectors.

SENATOR SASSER: The R&D budget request includes $4.2 million for physiological research, i.e., changes to medical certification standards. Is this research request limited to pilots as the study group, or will it also extend to air traffic controllers, flight attendants, and maintenance technicians?

ANSWER: Of the approximate $4.2 million targeted for Aeromedical Research in FY 1994, only about 1/3 is directed to physiological issues related to improving medical guidance, clearance, or certification procedures affecting the civilian flight participant. The principal beneficiaries of this physiological research are pilots, flight attendants, and passengers. The research primarily assists the FAA in evaluating the safety of cockpit and cabin environments for these three groups, and also in assessing complex medical certification decisions applicable to pilots (who have very structured and mandated physical examinations).

The research is also (but only partially) applicable to mandated air traffic controller (ATC) examinations, since the ATC work environments do not have comparable physical stressors. This research currently does not address the occupational health concerns of maintenance technicians.

Finally, the remaining 2/3 of the Aeromedical Research program is focused on improving personal protective equipment and procedures used in nominal and emergency civilian flight environments and in providing sophisticated post-accident medical evaluation. This part of the research benefits all except those categories of personnel whose civil aviation jobs are permanently ground-based.

SENATOR SASSER: To what extent, if any, will advanced automation affect the issue of duty time, for pilots, flight attendants, and maintenance technicians respectively?

ANSWER: It is not anticipated that advanced automation will impact the issue of duty time because: duty time for pilots and flight attendants is based on both total duty time and total flight time accumulated. These limitations are based on assumptions of work and flight schedules that allow appropriate sleep and rest, not on workload associated with flight tasks. Duty time for maintenance technicians is scheduled in accordance with fair labor practice regulations.

SENATOR SASSER: In 1992, the National Transportation Safety Board (NTSB) initiated more than 2,250 General Aviation accident investigations. In that year alone, 812 persons were fatally injured in General Aviation accidents. Despite these numbers, General Aviation is often a lifeline for small towns and out of the way places. What specific program areas and percentage of the overall R&D request is devoted to General Aviation concerns?

ANSWER: The FY 1994 R,E&D budget request includes approximately $11.1 million (4.4%) for General Aviation concerns (including commuter aircraft) in the following specific program areas:

Program($000)	
Aircraft Crashworthiness/ Structural Airworthiness	1,000
Propulsion and Fuel Systems	1,400
Flight Safety/Atmospheric Hazards Research	1,100
Aging Aircraft	4,500
Aircraft Catastrophic Failure Prevention Research	300
Flight Deck Human Factors	1,800
Flight Deck/ATC Systems Integration	1,000
Total	11,100

SENATOR SASSER: In testimony earlier this year, the NTSB cited several Federal Aviation Administration program areas among its "Most Wanted List" of needed transportation safety improvements. With respect to Structural Fatigue Testing of Aircraft, the NTSB recommended requiring tests of aircraft to the equivalent of two lifetimes of use. The FAA has requested a total of $22.6 million for aging aircraft research.

For the record, what was the official FAA response to the NTSB recommendation on Structural Fatigue Testing?

ANSWER: FAA's current position on NTSB Recommendation A-89-067 is as follows: A Notice of Proposed Rulemaking (NPRM) was sent to OMB for coordination proposing to require two lifetimes of fatigue testing on new airplanes with seating capacity of 30 passengers or more, or payload capacity of more than 7,500 pounds. The Aviation Rulemaking Advisory Committee (ARAC) is drafting a revised Advisory Circular (AC) to specify special fatigue evaluations of older airplanes. Subsequent tear-down, inspection, or modification would be mandated by Airworthiness Directive (AD). This approach represents a change from the ARAC's previous position which was to write a Special Federal Aviation Regulation and associate AC. The FAA has not yet received specific recommendations for review from the ARAC. If accepted, the revised AC would be published in late 1993.

SENATOR SASSER: What percentage of the existing fleet will benefit from planned aging aircraft research activities? Also, can you identify specific cost-savings as a result of action in this area?

ANSWER: All airplanes in the fleet are either aging airplanes now, or will be at some time in the future. The only airplanes that may not be affected by our aging aircraft research activities are those that will be removed from service at a young age (uneconomical to operate, accident, modified for non-commercial use, etc.). Essentially 100 percent of the remaining fleet would be affected or influenced by our research.

We are not able to identify specific cost-savings. The intent of this program is to allow aging airplanes to operate safely beyond their original design life goal. Thus, the savings would be in accidents prevented, and in avoiding the high cost of replacing these airplanes with new ones when the older airplanes could still be operated safely.

It is always impossible to set a price on accidents prevented, since you never know what would have happened. It is also impossible to know how effective this research program will be in avoiding unnecessary airplane replacement, since many airplanes (new and old alike) are now being grounded by excess capacity, higher fuel costs or noise reduction requirements.

In the near term, however, continued operation of older aircraft is essential to the airline industry, and some continuing research is needed to keep this operation safe.

SENATOR SASSER: The R&D Budget request indicates that the automated Safety Performance Analysis System (SPAS) will provide the FAA aviation inspector with a means to focus on air carriers/airplanes that are of greatest concern. Will the SPAS be at all comparable to the Federal Highway Administration's Bridge Inventory in terms of setting criteria and priorities for repair?

ANSWER: The Safety Performance Analysis System (SPAS) will analyze and integrate information from over 25 different data bases with safety compliance information that is entered on air operators, air agencies (including repair stations) aircraft and airmen. In addition to the larger population of areas requiring surveillance, there are many more areas that need to be analyzed. From the standpoint that the FHWA system uses information from all the states to determine priorities for additional or reduced inspection, and allocation of resources, their system is comparable to SPAS. However, the more comparable precursor for the SPAS system was a system developed by the Department of Defense called the Air Carrier Analysis System, or ACAS. FAA actively participated in the development of that system which began in 1986. FAA has utilized knowledge gained from the design of the ACAS system and the same Department of Transportation system designers from the Volpe National Transportation Systems Center in Cambridge, Massachusetts, are assisting the FAA in the design process. The SPAS system will be used to display graphic trends that summarize the results of the information analysis that can be used by field inspectors, supervisors and managers to assist them in determining the real-time performance of certificate holders. The information will be updated at least once daily. Performance is based on the degree of compliance of the certificated entity to the Federal Aviation Regulations. Information about the SPAS system was also shared with the FAA Office of Accident Investigation and the Office of Safety. Meetings have taken place with the Federal Railroad Administration, which is constructing a less complex system, and the Coast Guard. Information about this type of system was also shared early in the SPAS design process with the IRS. The NTSB, and the GAO have been kept apprised about the progress of the SPAS system. Listed below is a chart contrasting ACAS and SPAS.

CONTRASTING ACAS AND SPAS

Air Carrier Analysis System (ACAS)	Safety Performance Support Analysis System (SPAS)
Purpose:	Purpose:
To monitor performance of contract carriers to enhance safety	To monitor performance of certificate holders regulatory compliance to enhance safety

Contracting for Service	**Regulatory Compliance**
Development Period: 5 Years (1986-1991)	Development Period: 5 Years,estimate (1991-1996)
System Development Cost: Excluding Hardware DoD $9.0 million FAA $0.2 million Total $9.2 million	System Development Cost: Excluding Hardware FAA $9.8 million
Users: DoD 40 Other 20 Total 60	Users: FAA 2800 Other 10+ (DoD)
Components: Air Operators 241	Components: Air Operators -4000 Air Agencies -10000 Aircraft (air carriers) -6100 Air Personnel (active) -700000
Environment: Centralized Database Character Based	Environment: Distributed Database Graphical Based
Data Sources: 22	Data Sources: 30 (Only 9 in common with ACAS)
Categories: Accident/Incident Operations Maintenance Service Quality Finance	Categories: Now under definition -- expected to exceed 12 categories

SENATOR SASSER: How will emerging aircraft technologies affect the need to modify qualification standards for the aviation safety inspector?

ANSWER: Many changes that occur in the aviation industry impact the qualification requirements for the aviation safety inspector occupation. Emerging aircraft technologies may require, at a later time, the revision of the qualification standards for aviation safety inspectors. For example, the use of composite materials in the manufacture of aircraft and aircraft components or the introduction of satellite navigation equipment will require the Federal Aviation Administration to review the knowledge, skills, and abilities (KSA) of the maintenance and avionics aviation safety inspector work force. The focus of such a review will be to identify how the use of new materials impacts the certification, inspection, and surveillance of maintenance and avionics programs. The Administration must then determine if it must change the composition of the work force by recruiting individuals who possess entirely different KSA's, or if the existing work force can attain the needed KSA's through additional education and/or training.

Similarly the operations aviation safety inspector work force must now be cognizant of new equipment and concepts such as satellite navigation equipment, crew resource management training, and ground deicing programs. The FAA has determined that the current aviation safety inspector work force possesses the basic KSA's to properly certificate, inspect, and surveillance air operators and air agencies implementation of emerging technologies and programs. For the near term the aviation safety inspector work force will be given additional training to provide them with the information, knowledge, and skills needed to stay abreast of the changes occurring throughout the aviation industry.

SENATOR SASSER: The R&D Budget justification indicates planned research activities, in cooperation with the NTSB, related to aircraft fire safety. How will such research strategies vary for existing, aged aircraft versus new generation aircraft?

ANSWER: Our cooperative research activities with NTSB, related to aircraft fire safety, consist primarily of participation in accident investigations and testing and analysis of accident samples. NTSB often solicits our assistance in accident investigations because of the expertise of our fire safety specialists and our unique full-scale and laboratory testing capabilities. Therefore, this particular activity focuses on existing aircraft. The main emphasis is on improved fire resistant materials and the permanency of the fire resistance over the life of the aircraft.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

SATELLITE NAVIGATION

SENATOR D'AMATO: The Global Positioning Satellite system holds great promise for aviation navigation. If it can achieve its full promise, it may replace navigation aids now being used or still being developed. The Defense Department has funded this program through its original research and development. How much redundancy does FAA require in terms of the numbers of satellites that will be needed to assure reliability and accuracy of GPS?

ANSWER: The Standard Positioning Service (SPS) of the Global Positioning System (GPS) has been made available to support aviation navigation. To take advantage of this offer, three basic operational requirements must be met: integrity, accuracy, and availability. These requirements vary with respect to the phase of flight (e.g. en route, non precision, precision approach) and the level of service (e.g. supplemental, sole means). A comprehensive model has been developed to determine the best mix of satellites to meet operational requirements. Based on an initial analysis, the best configuration would be a mix of GPS and geostationary satellites. To satisfy sole means operations through non precision approach, that mix would be 24 GPS satellites plus 3 optimally placed geostationary satellites.

SENATOR D'AMATO: What is FAA doing to put in place the necessary interagency agreements to assure the complete cooperation of the Department of Defense in securing for FAA full access and complete control over GPS program aspects vital to global air navigation?

ANSWER: The FAA and DoD currently have two (2) interagency agreements in place covering international civil aviation use of the GPS and use of the GPS in the National Airspace System (NAS). Recently the Secretaries of Transportation and Defense have agreed to examine the operational, technical and institutional implications of increased civil use of the GPS, including civilian aviation. To implement the agreement, they have established a Joint DoD/DOT Task Force to identify, address and formulate consensus resolutions to the issues resulting from expanded civil use. The Joint Task Force is currently in operation and will prepare and submit a report to the Secretaries in November 1993.

SENATOR D'AMATO: What concrete steps are FAA and DOT taking to work with foreign governments to advance the GPS system as, perhaps, the optimum world aviation navigation system?

ANSWER: The FAA represents the U.S. in the International Civil Aviation Organization (ICAO) as well as its Future Air Navigation System Committee (FANS)/Phase II. FAA senior staff and management attend and participate in all ICAO and FANS/Phase II international meetings. In October 1991, responding to recommendations from the FANS/Phase II Committee, the ICAO approved the Global Navigation Satellite System (GNSS) as the global air navigation system of the future. The imminent operational status of the GPS and a U.S. commitment to provide the GPS/SPS signal to all users at no direct cost was the basis of the FANS recommendation and ICAO approval. The FAA is willing to provide technical, training and implementation support to those countries desiring to participate in the GNSS global air navigation system. A number of FAA cooperative programs with foreign governments currently exist and are producing excellent results. A particularly noteworthy example is the cooperative program with the Fiji Islands to establish a GPS sole means air navigation system for the archipelago. This and other FAA cooperative programs are providing international leadership in establishing the future global air navigation system.

SENATOR D'AMATO: Please explain the role of Instrument Landing Systems (ILS) vis a vis a future successful implementation of GPS technology. Will ILS become obsolete?

ANSWER: Current planning is based on the idea that a Category I precision approach capability can be provided in the United States by 1998 using Wide Area Differential GPS. If a Category I capability is achieved with GPS, we estimate a potential cost savings of several hundred million dollars in planned ILS and Microwave Landing System (MLS) acquisition through the year 2000. We have adjusted our Capital Investment Plan based on this idea, truncating the procurement of Category I ILS after 1995, except for replacements.

Despite the potential of satellite technology for precision approach service, the Instrument Landing System is not expected to become obsolete. Although no ILS's will be procured after 1995 for new installations, existing systems, together with new equipment procured through 1995, is expected to be in service for at least another ten years. We expect to collocate GPS equipment with ILS to minimize the transition impact upon the users.

DUAT PROGRAM

SENATOR D'AMATO: Why is FAA terminating funding for the DUAT (direct user access terminal) program? Isn't this system relied upon by many general aviation pilots? Will these pilots have adequate alternate services provided to them by flight service stations?

ANSWER: Commercial direct user access services are offered on a pay-for-use basis by several profitable companies in addition to these services being provided for free by the two DUAT vendors under contract to the FAA. As part of FAA efforts to reduce Government spending, we have proposed elimination of the funding for DUAT services. We anticipate that the two DUAT vendors will join the other companies in the competitive marketplace in providing these services. The increased competition should result in minimal charges for aviators desiring to use the services. General aviation pilots can continue to obtain free preflight briefings and file flight plans using FAA's toll-free number which connects them to a flight service station specialist. Automation equipment recently installed at Automated Flight Service Stations has increased the efficiency of services provided and reduced the call wait time to access these services.

ASDE-3 RADARS

SENATOR D'AMATO: What is the status of the ASDE-3 program? Please explain why the FAA does not want to competitively bid additional units for this program?

ANSWER: The current contract is for procurement of 33 ASDE-3 systems, 21 systems have been factory accepted and 13 systems delivered to FAA sites. The commissioning schedule for operational use of the systems has been delayed. Recently a concern was raised that the small percentage of cadmium material in the bush block of the antenna pedestal posed a potential health hazard to FAA personnel. The FAA has investigated this issue and concluded that with proper handling there is no hazard.

The investigation findings have been coordinated with employee union representatives and it is anticipated that commissioning will begin in July 1993.

The FAA FY 1993 appropriation provided funding for the procurement of additional ASDE-3 radar systems. The FAA issued an announcement in the Commerce Business Daily (CBD) that it was our intention to procure additional ASDE-3's on a sole source basis from the prime manufacturer. The CBD announcement process allows any other potential contractors to respond to FAA requirements. One response was received from Cardion, Inc. This proposal was evaluated but could not meet FAA requirements and Cardion was so notified by the FAA. The FAA is proceeding with a non-competitive procurement.

SENATOR D'AMATO: What difficulties have been encountered by the FAA in this program? Have they satisfactorily been resolved?

ANSWER: Technical problems experienced 2 years ago in the program were de-bonding of the antenna and "split targets". The de-bonding of the antenna has been corrected and validated through testing. The ASDE-3 "split target" issue has been evaluated and found to be a natural occurring radar phenomena that does not significantly impact the operational use of the systems. During shakedown testing at Pittsburgh and Atlanta, software problems were discovered that required resolution prior to commissioning. The majority of the problems are attributable to software anomalies that cause the display process unit (DPU) to become non-responsive to operator input. These software problems have been resolved by editing portions of the DPU software and changing circuit board component values to improve noise immunity. An upgraded software version (v6.10) will be installed in all ASDE systems. Recently a concern was raised that the small percentage of cadmium material in the bush block of the antenna pedestal posed a potential health hazard to FAA personnel. The FAA has investigated this issue and concluded that with proper handling, there is no hazard. The investigation findings are being coordinated with employee union representatives and it is anticipated that commissionings will begin in July.

COOPERATION BETWEEN THE FEDERAL GOVERNMENT AND THE U.S. AIRCRAFT INDUSTRY

SENATOR D'AMATO: What is the FAA doing to foster cooperation in research and development between the Federal Government and the U.S. aircraft industry?

ANSWER: FAA's innovative cooperative research program supports external research coordination in several areas, Technology Transfer Program, the Independent Research and Development Program, among others. Cooperative efforts forged with industry elements in a number of working groups have been formed as part of advisory committee activities. These include cooperative research on aging aircraft, security technologies and capacity improvement initiatives. We are presently exploring other avenues for greater industry/FAA partnerships between Government/industry consortia. The airline industry for example, is currently considering an FAA proposal to form such a partnership in the research and development of a common digital data link communications network.

SECURITY

SENATOR D'AMATO: What progress has the FAA made in its threat detection work with respect to improving efforts to detect weapons and explosives?

ANSWER: We have made substantial progress in a number of areas. We have updated the threat review that was completed in May 1991 in response to Section 107 of the Aviation Security Improvement Act of 1990. We expect to complete our internal review of this update in the next several weeks.

We are also in the final review process for the Explosives Detection System (EDS) Certification Criteria that was proposed for comment in the Federal Register, Notice 92-16, in November 1992. Along with these criteria, we have completed a draft Management Plan for EDS Certification Testing--based upon the bulk testing protocols developed by the National Academy of Sciences--that will be noticed to the public for comment in the next few weeks. These three documents will form the framework for our EDS Certification Testing Program in response to Section 108 of the Aviation Security Improvement Act.

The FAA has significantly accelerated its research efforts for bomb detection. There are currently several candidate bulk explosives detection devices in airport prototype and laboratory model stages of development, with some in production, that are likely to meet many, if not all, of the certification criteria. These include devices based on computerized tomography, dual energy, backscatter and coherent X-ray technologies. There are also promising laboratory results from the pulsed fast neutron analysis technology similar to that being considered for channel tunnel security by the British and French.

Research progress has also been made with a number of other technologies for screening of people and carry-on baggage, such as vapor/particle detection devices designed to find trace amounts of explosives.

In the area of weapons detection, we have a couple of devices based on backscatter X-ray and millimeter wave technologies that have progressed substantially. The first phase millimeter wave prototype device was recently tested for data gathering at Seattle-Tacoma Airport.

With the dedication of the new security laboratory at the FAA Technical Center in Atlantic City in November 1992, we are looking forward to establishing a world class expertise in explosives and weapons detection technologies. We plan to have everything in place to be ready to start conducting EDS Certification tests at this new facility in August 1993.

SENATOR D'AMATO: Have airports and air carriers been cooperating with FAA in this effort?

ANSWER: A number of airports and air carriers have cooperated with the FAA in conducting operational tests of various technologies. We have had excellent cooperation from the New York and New Jersey Port Authority, Miami International Airport, the British Airports Authority and the UK Department of Transport, the Washington Metropolitan Airports Authority, and the San Francisco Airports Commission in conducting past and current technology demonstrations. TWA, Pan Am, and United Airlines participated in these demonstrations from the air carrier side.

Currently, we are conducting demonstrations or planning installations of enhanced X-ray and vapor/particle detection devices for screening of electrical items at LaGuardia and Atlanta airports with the cooperation of the airport authorities, USAir and Delta. We have further demonstrations planned as additional equipment is acquired. In total, we plan to acquire nearly $1 million of equipment for these operational demonstrations and move it through a number of airports all over the U.S., and possibly abroad, for periods of 90-120 days.

The FAA Technical Center is nearing completion of tests at Miami International Airport using both enhanced X-ray and vapor/particle detection devices to collect data on the performance of these technologies when used in combination.

Generally, we have found that both airport authorities and the air carriers are cooperative in arranging these types of tests at their facilities, so long as they will not incur substantial additional capital costs above routine operations for acquiring or installing these advanced technologies.

SENATOR D'AMATO: What major obstacles still need to be overcome?

ANSWER: The research work in the development of explosive detection devices is progressing well. Through the FAA research initiatives and cooperative research and development agreements with industry a number of explosives detection devices are being marketed around the world by United States industry. These technologies are performing quite well but there are further development requirements for the detection of all explosive materials. The exact materials and quantities are classified.

A major research initiative is the integration of these explosive detection devices into an explosive detection system (EDS) to provide a required level of detection, within a given false alarm rate and throughput rate. A limited combined technology test is being performed in Miami International Airport in the Delta baggage makeup area and at the American passenger check in counter. Bagology data is also being collected throughout this testing in support of future certification testing of EDS. This combined technology test will be completed by the end of June.

The FAA has a certification process in place in order to test and approve candidate EDS for use in United States Airports. The process of developing, testing, and integrating advanced technology equipment and systems is long, but it is believed by the R&D community that certain technologies are almost mature enough to meet the challenge.

SENATOR D'AMATO: What findings of potential benefits has the FAA made with respect to its work on aircraft hardening to reduce damage from explosives? Is this area a promising one? Is it commercially feasible, from both technical and cost points of view, to make such changes to aircraft for security purposes?

ANSWER: The FAA aircraft hardening effort is addressing both near and long term solutions to explosive effects. In the near term, a strengthened luggage container has been developed and tested which will significantly improve survivability. This promising concept is technically feasible and an effort has been initiated which will investigate the economic effects of weight, manufacturing cost, and durability as well as evaluate operational impacts. In the long term, the FAA, with the help of a team from Boeing, McDonnell Douglas, Lockheed, and the Department of Defense, are addressing aspects of design such as structures, systems, flight controls, and aerodynamics which will provide us with the vulnerability and failure mechanisms of current fleets and aid in the identification of potential hardening techniques applicable to both current and future designs. These techniques will then be evaluated and tested for both technical and economic feasibility.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

FAA AGING AIRCRAFT NONDESTRUCTIVE INSPECTION DEVELOPMENT AND DEMONSTRATION CENTER

SENATOR DOMENICI: It is my pleasure to see you again, Mr. Del Balzo, today to discuss the Administration's FY 1994 budget request of $250 million for the FAA Research, Engineering and Development program. As you mention in your statement, the President's request for these activities represent an 8.7 percent increase above the 1993 level.

Mr. Del Balzo and I had an opportunity to briefly discuss the FAA's Aging Aircraft Nondestructive Inspection Development and Demonstration Center at a hearing before this Subcommittee earlier this month. However, for the witnesses before the Subcommittee this morning, I should perhaps explain that over the past three years, I have been pleased to work with the distinguished Subcommittee Chairman and Ranking Member, as well as Department of Transportation and the Federal Aviation Administration (FAA) officials on a very important and immediate issue -- the safety of aging aircraft.

As today's witnesses know, we have begun to see the serious implications of aging aircraft with U.S. airlines now operating the oldest fleets in aviation history with the average age of the fleet of approximately 3,300 airplanes being 13 years. One-third of these planes are actually 20 years or older. They have, in fact, reached their designed economic life.

I am pleased to report that the FAA Aging Aircraft Nondestructive Inspection Development and Demonstration Center in Albuquerque is now officially in operation. I was extremely pleased to be at the official opening of the center this last February, and I must tell Mr. Safeer, Director of the FAA Technical Center, that we were sorry he was unable to join us for a very exciting event. We now have the opportunity to establish a world-class center to:

- develop and demonstrate nondestructive inspection techniques on aging aircraft;
- provide assessments of both the reliability of proposed inspection techniques and cost benefits that can be derived by their use by the aviation industry; and
- validate the NDI processes developed throughout the FAA's overall program and transfer them to industry use.

I hope that you will continue the Administration's valuable support for this innovative project. I want to commend the FAA for its support for the project on a multi-year basis. I am pleased that the FAA and Sandia National Laboratories in Albuquerque, along with the University of New Mexico and industry, the Science Applications International Corporation (SAIC), have established a good working relationship that seeks to meet the needs and interests of the aviation industry.

Mr. Del Balzo, you indicated in our previous hearing that the FY 1994 budget for the Federal Aviation Administration includes the necessary funding to continue the collaboration on the Aging Aircraft NDI Center. What is the estimated funding level for the Center for FY 1994 and for the five year period?

ANSWER: The estimated funding level for the Aging Aircraft NDI Center for FY 1994 is $3 million. Based on our current research and development projections we anticipate funding at similar levels for the five year period. In addition, we expect that technology transfer activities related to the aviation industry will continue, justifying the NDI Center's funding profile.

SENATOR DOMENICI: Might I ask Mr. Safeer his impressions of this joint FAA-consortium project and the potential contributions it might make to the aviation industry?

ANSWER: The Aging Aircraft Nondestructive Inspection Validation Center (AANC) which has been funded through FAA since 1991, has made great strides towards validation and inspection reliability arenas as applied to NDI technologies. The Center's acquisition of a realistic test bed provides the aviation industry an opportunity to assess the abilities of NDI technologies in addressing the inspection needs. The AANC has the potential of substantially reducing the time and costs involved in transitioning new technologies from research and development laboratories to realistic commercial aviation inspection tools.

SENATOR DOMENICI: On page 6 of your testimony, Mr. Del Balzo, you acknowledge the difficult business climate facing the aviation industry. You indicate that the introduction of new technologies to reduce operating costs, for example, earns a very high priority from the FAA.

Would you agree that the introduction of technology into the inspection of aircraft has the potential to not only improve the safety of aircraft, but to reduce operating costs as aircraft are out of flight for lesser periods of time?

ANSWER: The introduction of new technologies which reduce the repetitive inspection tasks via automation and intelligent processing have the potential of saving time and improving inspection reliability. As an added bonus, these improvements can also enhance safety operation of in-service aircraft through more reliable and effective inspections carried out on a near real-time basis. The ability to evaluate NDI data via automated means has the potential of substantial reduction in operating costs since the inspection costs in terms of time, personnel, and money will be lower.

SENATOR DOMENICI: You further state, Mr. Del Balzo, that approximately 44 percent of the FAA's Research, Engineering and Development budget will be applied to projects designed to improve safety. What percentage of this amount will be focused on the aging aircraft issue?

ANSWER: The 44 percent figure quoted also includes projects which enhance aviation security as well as safety. The most recent estimate of safety alone is 33.6 percent (or $84 million) of the FY 1994 budget. The Aging Aircraft program represents 27 percent (or $22.7 million) of the total safety estimate for FY 1994.

SENATOR DOMENICI: Mr. Augustine highlights the recommendations of the FAA Research, Engineering and Development Advisory Committee that were presented in 1991 and updated in January of this year. The principal recommendation of the Committee was that the annual funding for the FAA R,E&D program be increased to $500 million by FY 1996. As the Chairman is well aware, that would represent a doubling of this budget over the next three years.

Mr. Augustine, the Chairman and his able staff work wonders in this Subcommittee, but this is a tall order. What other avenues might the FAA use to leverage its resources on R,E&D activities?

ANSWER: FAA is focusing on strengthening cooperative efforts with external laboratories, particularly those operated by NASA, DoD, and DOE. In addition, the agency is seeking to establish a partnership with industry consortia in joint research and development activities. These cooperative initiatives with both public and private sectors are aimed to leverage FAA's R,E&D resources, while accelerating delivery of products to the end user.

SENATOR DOMENICI: I know NASA has received significant attention because of its similar focus on aeronautical research. Wouldn't it be a valuable exercise to explore the capabilities of other federal agencies and federal research laboratories, as well as universities and academia. Is that consistent with the overall recommendations of the Committee?

ANSWER: Yes, FAA currently has agreements and research activities in place with 36 public or non-private laboratories. Examples of activities with these laboratories include air traffic control automation, aviation security technologies, aircraft safety such as aging aircraft and non-destructive testing, and airport pavement research. This is consistent with the overall recommendations of the Committee.

SENATOR DOMENICI: Mr. Li of GAO highlights this issue in his testimony as well, indicating that "utilizing research conducted by other federal agencies" is one of the factors upon which the FAA R,E&D program should rest. I know GAO has focused specifically on collaboration between the FAA and NASA. Would you expect that other federal agencies and federal research laboratories could contribute to these FAA research goals as well?

ANSWER: FAA believes there is potential for expanding its present substantial cooperative research activities with other Government organizations. We are currently surveying a number of federal laboratories to assess applicability of on-going research to civil aviation areas and to initiate new starts which support FAA's research goals.

SENATOR DOMENICI: One of the FAA's R,E&D goals is to eliminate aircraft fires and aging aircraft concerns as significant safety issues by 1996. Does this goal seem reasonable given the progress made by the FAA on its research program.

ANSWER: The threat of fire and fatalities following an aircraft crash is great considering the large quantities of aviation kerosene, dense population of passengers, and extensive use of synthetic materials to line and furnish the cabin. Fire is a complex phenomenon and we are undertaking research to better understand and deal with it. We are encouraged by new regulations derived from the fire safety program that have demonstrably reduced fire fatalities.

With the establishment of the congressionally sponsored research and development program at Iowa State University and the validation center at Sandia National Laboratories, NDI issues have been focused on commercial aviation, particularly aging aircraft. In addition, a consortium of U.S. engine manufacturers and Iowa State

University has recently been funded to address engine inspection issues. Given the progress so far there is reason to believe that we will make substantial progress by 1996.

As a result, a large portion of our near-term research efforts are focused on maintaining the achieved fire safety levels. A prime example is the large effort we have in combination with the Department of Defense and other government agencies to find alternative but equal fire suppressants for the halons, which have extremely high stratospheric ozone depletion potential. Longer term, we presently see that fire safety enhancements depend on developing entirely new technologies or significant modification of emerging ones. To achieve these long-term enhancements we have planned out the requirements and established the organizational capability to conduct long-term fire research. Similarly, the vast majority of near-term threats associated with aging aircraft have been or will be shortly under control. As in fire safety, improvements long-term involve new technology implementation in the form of robotics, mathematical analysis, and human performance.

GENERAL ACCOUNTING OFFICE

QUESTIONS SUBMITTED BY SENATOR SASSER

RESEARCH, ENGINEERING, AND DEVELOPMENT (RE&D) PROGRAM

SENATOR SASSER: In testimony earlier this month, Mr. Li, you provided this Subcommittee with a status report on the schedule delays and cost overruns in the FAA's modernization plan. Your testimony especially focused on the degree of problems in the FAA's Advanced Automation System (AAS) and the Initial Sector Suite System (ISSS). How have delays in the AAS and ISSS affected progress in related research and development activities, in particular the Air Traffic Management technology?

ANSWER: According to FAA officials, delays in AAS and ISSS have had some impact on FAA's Air Traffic Management Technology research. One project affected by the delays is Terminal Air Traffic Control Automation (TATCA). TATCA is particularly important because it can assist controllers in routing aircraft more efficiently and thereby reduce airline delays. FAA officials told us that TATCA is moving forward and is being engineered to work with existing older equipment as well as AAS. FAA plans to integrate Air Traffic Management Technology efforts with AAS as they become available. However, FAA recognizes that major system integration challenges lie ahead, especially with integrating AAS data with TATCA. Further, additional changes in AAS requirements will only exacerbate integration efforts with TATCA.

SENATOR SASSER: In your opinion, does the overall RE&D request adequately target/balance the RE&D investment program areas? What specific recommendations would GAO offer to FAA to achieve greater economic benefits to industry/air travelers?

ANSWER: Given FAA's budget, FAA's distribution of resources among the major areas, such as air traffic management and aircraft safety, appear to be reasonable. As you know, increases in RE&D funding over the past several years have largely benefited aircraft safety, human factors, and aviation security--not air traffic management research. According to FAA, this is a trend that is likely to continue for the next several years. However, decisions about funding will be very difficult and require careful trade-offs among diverse programs. FAA's RE&D Plan--a road map for FAA's research efforts--would cost about $500 million annually by fiscal year 1995. To implement the plan, FAA would need a budgetary increase of almost 100 percent. In our view, it is not prudent to believe that such large increases will be forthcoming.

FAA's fiscal year 1994 budget request reflects the agency's struggle to determine priorities among many diverse programs and the correct balance of long- and short-term research. FAA's planned use of mission need statements is a positive step and should help FAA determine the balance of funding for the major efforts. These statements should clearly indicate a project's role in meeting FAA's mission and the risk involved. While mission need statements are not panacea for the RE&D Program, they should help FAA determine which technologies show promise and help the agency balance the needs of many diverse research efforts.

SENATOR SASSER: Your testimony indicates the pivotal role that NASA research plays in the areas of FAA safety and capacity. Do you have any estimates regarding the extent to which better coordination of research can produce cost savings amongst government agencies?

ANSWER: Our review did not focus on the cost-savings aspect of cooperative research with other agencies and, therefore, we do not have an estimate on how better coordination could produce cost savings. However, we can offer two observations from our work at FAA and NASA.

First, our work indicates that FAA contracts with other federal research organizations may be more cost effective than contracting with the private sector. For example, when FAA contracts with NASA, FAA gains access to NASA's large facilities and in-house expertise at no additional cost. A private contractor may charge additional costs to procure test facilities and expertise. Similarly, FAA officials told us that the agency's aircraft hardening work at the Department of Defense's (DOD) Wright Patterson Laboratory is being done at a fraction of the cost that a private contractor would charge. For example, DOD provided at little or no cost several surplus strategic bombers to test the blast effects of sophisticated explosives on aircraft structures. However, according to FAA, NASA, and industry officials, contracting with other federal agencies is not a cure-all and the cost-savings depends on the federal entity as well as its overhead costs.

Second, benefits other than cost-savings could be realized from closer cooperation between FAA and other federal agencies. For example, closer cooperation between FAA and NASA can speed the development of new air traffic control technology--such as applications for satellites--that will significantly benefit the U.S. aerospace industry. Also, FAA's examination of DOD's research efforts promises to identify several areas--such as sensor fusion--that FAA could transfer to the civil aviation community. Closer coordination and a clear understanding of research priorities can help focus long-term research efforts.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

SENATOR DOMENICI: Mr. Augustine highlights the recommendation of the FAA Research, Engineering, and Development Advisory Committee that were presented in 1991 and updated in January of this year. The principal recommendation of the Committee was that the annual funding for the FAA RE&D program be increased to $500 million by FY 1996. As the Chairman is well aware, that would represent a doubling of this budget over the next three years.

Mr. Li of GAO highlights this issue in his testimony, as well, indicating that "utilizing research conducted by other federal agencies" is one factor upon which the FAA RE&D program should rest. I know GAO has focused on specifically between FAA and NASA. Would you expect that other federal agencies and federal research laboratories could contribute to these FAA research goals as well?

Has GAO done any survey of other federal research and technology capabilities in this context?

ANSWER: The success of FAA's RE&D Program relies heavily on how well the agency can take advantage of research conducted by other federal agencies and private organizations. This is particularly important in today's environment where competition exists for scarce research dollars. A term frequently used in the research community to describe this is "leveraging." As our work at NASA points out, FAA must move beyond the "not invented here" syndrome and leverage research conducted outside of FAA.

Although we have not conducted a survey of all federal laboratories and research centers that could provide assistance to FAA, our work shows that FAA can make better use of NASA and Department of Defense (DOD) research activities. As we state in our testimony, FAA can take advantage of NASA's expertise to speed the implementation of satellite navigation, surveillance, and communications. Similarly, DOD may offer FAA technologies that can be transferred to the civil aviation community. FAA is in the process of assessing DOD research efforts and plans to complete it this fall. DOD research areas that shows promise for FAA are sensor fusion, phased-array radar, and software development.

In addition to transferring technology, DOD officials at the Air Force's Wright Patterson Laboratory, who were familiar with FAA's aging aircraft and security efforts, told us that FAA's working with them offers two benefits. First, contracting with DOD laboratories may be less expensive that using private contractors. Because of the related research of both agencies, start-up costs for new projects would be minimized. Second, FAA's working closely with DOD may enhance the overall management of FAA's RE&D program because most testing can be done in-house.

SENATOR DOMENICI: One of FAA's RE&D goals is to eliminate aircraft fire and aging aircraft concerns as significant safety issues by 1996. Does this goal seem reasonable given the progress made by the FAA on its research program?

ANSWER: FAA's RE&D goals are ambitious but, in FAA's view, attainable. However, as we point out in our testimony, FAA's RE&D program cannot achieve the goals alone and must rely heavily on other FAA programs. For example, eliminating aging aircraft as a major safety concerns requires close cooperation between FAA's Flight Standards and Aircraft Certification offices and well as the airlines and aircraft manufacturers. Therefore, las year we recommended that FAA integrate RE&D goals into other programs or develop goals that are directly achievable by the RE&D program. FAA has chosen to integrate its RE&D goals throughout the agency and has included one goal--to increase capacity by 20 percent by 1999--in its plan to modernize the air traffic control system.

Although FAA has made some progress in both aging aircraft and fire safety research programs, it is doubtful that either can be eliminated as significant safety issues by 1996 based on FAA's research efforts to date. The aging aircraft program has made progress in determining the technologies that can reliably detect aging aircraft problems, such as fatigue cracking and corrosion. Earlier this year, FAA tested a promising prototype inspection device for cracks, but concerns remain about the device's speed, cost, and reliability. Furthermore, the device has proven useful only for detecting one or two aging aircraft problems, such as fatigue cracking. According to FAA, additional research is needed to integrate several devices to detect other aging aircraft problems--multi-site damage, lap joint disbonds, and corrosion. Similarly, FAA's fire safety program is working on several technologies that could enhance survivability in the event of an in-flight or post-crash fire. Key research efforts include, among others, a water spray system in aircraft and a replacement for halon, the current engine fire extinguishing agent. However, FAA officials told us that technical problems and industry concerns about the cost, weight, and effectiveness of a water spray system for commercial aircraft remain to be resolved.

OFFICE OF TECHNOLOGY ASSESSMENT

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

U.S. Competitiveness Eroding

Question. You say that the competitiveness of U.S. aviation industries is being threatened. Can you say more about this and provide us with some specific examples? Could you, for example, illustrate the magnitude of this problem by providing some employment statistics relevant to specific sectors of the economy?

Answer. OTA's current study is addressing the airline industry (i.e., the service sector), not aircraft manufacturers. While the U.S. share of the international airline passenger market falls short of what might be anticipated based on quality and cost advantages of U.S. airline services, OTA does not conclude that U.S. competitiveness in air travel is being threatened. For example, U.S. airlines have the largest market share on most routes to and from the United States with operating costs 30 to 50 percent lower than most European and Japanese carriers. Markets are constrained by international bilateral agreements; an international "free market" for airline services does not currently exist.

U.S. airline employment is closely correlated to traffic demand (which corresponds directly to gross domestic product). During the past decade, total airline employment decreased just once, in 1991, the only year that airline traffic declined. Employment fell about 2 percent in 1991, and both employment and traffic grew again in 1992.

Question. Where in the federal organizational framework is the critical flaw that is keeping our federal R&D from fostering economic health and competitiveness in the aviation community?

Answer. Federal aviation R&D does benefit the economics and competitiveness of U.S. aircraft and air traffic control equipment manufacturers. However, Federal R&D has virtually no effect on the competitiveness of U.S. airlines, as aircraft technology advances stemming from Federal R&D, such as more fuel efficient engines, are equally available to any airline in the world.

FAA R&D to enhance the air traffic control system could improve the economic health of U.S. airlines if the changes result in lower operating costs and higher productivity for the airlines. It is unclear to what extent a more efficient domestic ATC system would indirectly aid (through lower domestic costs) the international competitiveness of U.S. airlines. However, air traffic control does not directly affect airline competitiveness. Adequate long-term planning for and timely implementation of advanced ATC systems are the critical technology issues for FAA; the lack of stable leadership at FAA has been a weakness contributing to lack of progress.

Question. What options are open to FAA for enhancing its role in fostering that economic health and competitiveness? If this were a goal of the research effort, how should FAA change its focus?

Answer. FAA technical regulations and air traffic system management have economic and competitiveness consequences. Possible options for FAA include: (1) minimizing the cost burden of FAA regulations; (2) working to harmonize international aviation regulations and standards; and (3) better managing the current ATC system and speeding the development and implementation of advanced ATC technologies.

FAA could refocus its R&D and technology programs through stronger cost/benefit considerations. For safety programs, reducing the cost of technologies would become an R&D goal in addition to validating their feasibility. For ATC efforts, emphasizing near-term user benefits is essential.

Question. Would alternative organizational structures for FAA or for its research component make sense in order to achieve a more positive economic impact on the industry? What alternatives would you suggest?

Answer. Alternative organizational structures that would speed the development and implementation of advanced air traffic systems could have a positive impact on the aviation industry. The increasing role of commercial communications and computing systems in the air traffic system infrastructure makes public/private partnerships attractive options for accelerating technology development. Federal law permits and encourages agency participation in cooperative research and development agreements.

Priority Setting, Goals, Direction in FAA's R&D Program

Question. In your study, did you find FAA's goal-setting to be adequate? And if not, can you suggest an alternate process or concept under which appropriate goals can be set for aviation research?

Answer. OTA concurs with the GAO finding that FAA has set goals for its R&D efforts that go far beyond what R&D alone can obtain. FAA, with the advice of the aviation community, needs to establish and continually review long-term operational requirements for the aviation system. Operational requirements, and corresponding operational procedures development, must guide technology development.

Question. The mix of research at FAA has been questioned in the past. Did you find in your study that FAA put enough emphasis on forward-looking research compared to solving today's problems?

Answer. The balance between near-term and long-term research at FAA seems adequate. The inability of FAA as a whole, not its R&D division, to look forward and plan for the future has been the shortcoming.

Question. Mr. Dopart, you also conclude that an infusion of leadership and strategic planning is needed to ensure that problems of greatest importance are addressed. Did you find that the substance of FAA's Aviation R&D program was adequate? In other words, were the most pressing aviation issues receiving the attention they deserve?

Answer. The substance of aviation R&D -- safety, security, air traffic systems, and environmental impact -- at NASA and FAA are addressing the most pressing technological research issues for aviation. Getting technology to the field is the problem.

Question. Will your study be issued in time to be useful to the newly appointed National Commission to Ensure a Strong Competitive Airline Industry?

Answer. The study will be released in the Fall. In the meantime, OTA staff is available to meet with the Commission.

Question. The Augustine Panel's updated report suggests that almost 8 million jobs in this country are connected with commercial aviation. In advance of your report issue date, what can you share with us about actions we should consider to make aviation more efficient domestically and more competitive internationally?

Answer. Trade, finance, and other economic policies outside the scope of FAA's authority (and of OTA's aviation R&D study) are generally more critical to aviation economics and competitiveness than FAA R&D. Congressional action in these areas would have the greatest impact on aviation economics and competitiveness.

Expertise and Coordination

Question. You state in your testimony that it is important that FAA have adequate in-house expertise to evaluate research findings, apply the information to regulatory or technology initiatives, and identify new research issues. Have you found this to be the case? Is FAA's in-house research work force up to the task?

Answer. FAA's in-house research work force, especially in conjunction with FAA's RE&D Advisory Committee, has adequately addressed aviation safety, security, and capacity research issues. FAA may need to bolster its in-house environmental resources to address the complex aviation environmental issues looming in the coming decade. FAA also needs to improve its collection and analyses of data on the safety, capacity, and economics of the aviation system.

Question. Mr. Dopart, you also state in your testimony that FAA's operational perspective is critical to aviation research programs but that it is important not to let the "operational" viewpoint dominate the research efforts. Have you come across instances where the air traffic operations viewpoint might have dominated a research effort?

Answer. FAA technology development efforts require a balanced oversight with operational and technical expertise. The problem with FAA's technology development efforts has been the lack of operational input, not operational domination. Air traffic control managers have sometimes opposed the introduction of new systems; not being closely involved in the R&D phases of technology programs may be a factor in this resistance. For example, in developing operational procedures for the new Denver airport, some ATC managers opposed even considering alternatives to the standard display equipment for controllers.

Question. You paint a fairly positive picture of FAA coordinating with both private and other public organizations such as NASA. However, you conclude that more R&D oversight is needed at the budget level because different sides of OMB review the NASA and FAA research budgets. What negative impact might this have on either program and what can be done about it?

Answer. One negative impact of OMB's split review of aviation R&D is that important aviation research initiatives may be overlooked. For example, in recent years, OMB opposed research on detecting wake vortices behind aircraft, even though FAA, NASA, and the aviation community endorsed such a program. More comprehensive Federal aviation R&D oversight is needed. Joint FAA/NASA hearings on aviation R&D is one option this Subcommittee could pursue.

QUESTIONS SUBMITTED BY SENATOR SASSER

Question. Prior to the enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA), in April, 1991, the Office of Technology Assessment (OTA) issued its report "Delivering the Goods: Public Works Technologies, Management & Financing." Among the recommendations pertaining to FAA involved one for priority action in improving intermodal connections.

With the ATC modernization effort, there will be an anticipated increase in air travel demand. One of the concerns raised by the 1991 OTA report was a lack of FAA R&D on groundside access. The specific OTA comment was that "the growing numbers of passengers will, at best hinder system efficiency, and at worst, constrain capacity."

What specific R&D initiatives on intermodal operations did FAA undertake as a result of the OTA recommendation?

Answer. Intermodal R&D accounts for a small portion (about 0.1 percent) of FAA R&D. FAA allocated $300,000 in FY 93 for terminal design and groundside access projects, which, according to FAA and airport officials, is substantially below the needed effort.

In *Delivering the Goods*, OTA concluded that the strongly segmented modal structure will continue to prevail unless steps are taken to institutionalize an integrated, multimodal approach within DOT. Intermodal R&D, especially for passenger travel, needs to be better coordinated within DOT. To be effective, this must occur at the Office of the Secretary, possibly through the recently created Office of Intermodalism.

Question. The OTA report also emphasized the importance of integrating "human factors" in the safety and efficiency of the air traffic control system. The technological advances that are the basis for the overall modernization will fundamentally change the traditional role of aviation personnel, most especially pilots, air traffic controllers, and maintenance technicians. The FY94 R&D budget requests approximately $27 million for Human Factors and Aviation Medicine.

In your opinion, will the FAA allocation of funding for Human Factors research effectively address human performance in the advanced automation environment?

Answer. The FAA/NASA National Plan for Aviation Human Factors, which is strongly supported by the aviation community, effectively addresses the advanced automation environment. However, the FY 94 request for human factors research at NASA and FAA is roughly half the level called for in the Plan.

QUESTION SUBMITTED BY SENATOR DOMENICI

Question. Mr. Dopart of OTA includes a table in his testimony which focuses on basic and applied research, and development activities and the R&D which would be applicable to FAA missions. I am pleased to see a number of federal agencies represented on this table in addition to NASA, including DOD, DOE and DOE labs, Department of Commerce agencies, the National Science Foundation and others.

Mr. Dopart, I take this table to show that there are many federal entities engaged in research that has application to the FAA's research goals. Is it your impression that FAA and the Administration overall are moving toward collaborations with these agencies?

Answer. FAA has increased its R&D coordination efforts with outside organizations and has cooperative programs under way with over a dozen Federal agencies, but DOD and DOE research capabilities have been largely untapped by FAA. Changes in national defense requirements and missions may provide opportunities for future cooperative efforts between FAA and DOD/DOE laboratories.

SUBCOMMITTEE RECESS

Senator LAUTENBERG. This subcommittee stands in recess until May 27, 1993, at 10 a.m., here in the same room. We are going to hold a hearing on drunk driving, involving the National Highway Traffic Safety Administration and other nondepartmental witnesses.

The hearing stands in recess. Thank you all very much.

[Whereupon, at 12:30 p.m., Thursday, May 20, the subcommittee was recessed, to reconvene at 10:07 a.m., Thursday, May 27.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1994

THURSDAY, MAY 27, 1993

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:07 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, D'Amato, and Domenici.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

PUBLIC HEALTH SERVICE

STATEMENT OF DR. ANTONIA NOVELLO, SURGEON GENERAL

OPENING REMARKS

Senator LAUTENBERG. Good morning. We will bring the Subcommittee on Transportation of the Appropriations Committee to order.

It hardly seems possible, but next year is going to mark 10 years since we introduced the National Minimum Drinking Age Act of 1984. And I am proud of my role as author of this important law. And I am delighted to see an ex-colleague, Larry Coughlin, from a neighboring State, Pennsylvania, who also had an active interest and was very aggressive on behalf of getting that law into place. We welcome him here today as an observer.

The enactment of that law eliminated what we called the blood borders that divided many of our States prior to 1984, borders where adjoining States had different minimum drinking ages. Too often, young people crossed those borders to drink and did not complete the journey home alive. This law resulted in all 50 States adopting a uniform 21-year-old drinking age and it reduced alcohol-related deaths involving minors by 10 to 15 percent, with 8,700 fewer youths involved in fatal alcohol-related traffic crashes over the last decade.

It would be appropriate, I think, to mention a friend and former staffer, Mr. Tom Howarth, who did so much work on getting that law into place, and I am glad to see you here, Tom, as well.

Moreover, the fabric of laws that States have adopted to reduce drunk driving since the passage of the national minimum drinking age, over 1,200—over 1,200 new laws as a result of that—are now in place on the books, and that has resulted in 25,000 fewer traffic deaths since 1982.

However, despite these gains, there is still an unacceptably high number of young deaths, over 1,400 deaths a year caused by underage drunk drivers. And even more disturbing is that we are not making significant progress in lowering the disproportionate percentage of teenage automotive fatalities that result from drunk driving.

For example, of the 20,220 drivers who had been drinking prior to fatal crashes in 1988—again, that is in a single year—17 percent of those 20,000 were under 20 years of age, even though they comprise only 9 percent of the population. Every time we look at these figures it is shocking to realize that in a couple of years on the highways we lose more people than we lost in the Vietnam War.

The human tragedy of teenage drunk driving is measured in the funerals of too many bright and promising young people who made a terrible decision to drink and to drive. Too many funerals of law abiding citizens who were victimized by drunk drivers. Many of these deaths are avoidable.

The Surgeon General, like many observers, has concluded that the National Minimum Drinking Age Act has saved thousands of lives. And yet, in reviewing the efforts by States to prevent teenage drunk driving, she concludes that States' enforcement of the National Minimum Drinking Age Act is riddled with loopholes, with laxative, and just plain lip service.

We are pleased to have the Surgeon General with us this morning in the final weeks of her very able tenure. We are going to probe some of these problems with her. Most importantly, we look forward to discussing with her and our other witnesses this morning what steps might be taken to reduce the carnage on our roads.

Almost 10 years after the act was signed into law, many States have not taken action to put into place laws that will encourage compliance with the 21 law, for example. Several States do not prohibit minors from attempting to purchase alcohol or possessing it. In many States, it is not illegal for teenagers to use fake ID's to purchase alcohol.

The Insurance Institute for Highway Safety found that 97 out of 100 underage youths who attempted to purchase alcohol here in the District of Columbia were able to do so. In Westchester County, NY, 80 out of 100 attempts were successful. And you see it all over the country. There is no State that can say they really apply the effort necessary to abolish underage drinking altogether.

The Congress and the States have to work together to secure better enforcement of this law and to search for effective incentives and sanctions to stop underage drinking and driving. States must take the lead in the area of reducing minors' access to alcohol and educating our youth about the dangers of drinking and driving.

One promising approach toward curbing drunk driving is the enactment by 16 States, including my home State of New Jersey, of laws that mandate lower alcohol tolerance for young people. In some cases, these laws require a blood alcohol level of zero and automatic license revocation for violations.

States that have already lowered the allowable BAC levels for people under 21 are saving lives. A 1991 study compared fatalities in four States with lower underage BAC levels with fatalities in four States that did not lower limits. It found a one-third greater decline in teenage nighttime fatalities in States with the lower BAC levels. And surveys, both formal and informal, reveal that the threat of losing one's license is a powerful incentive for teens to change their behavior.

PREPARED STATEMENT

Before I introduce this morning's witnesses, I would like to insert an opening statement from my colleague Senator Sasser, who is unfortunately unable to join us at this hearing today.

[The statement follows:]

STATEMENT OF SENATOR SASSER

Good morning. Today's hearing focuses on the important safety agenda of the National Highway Traffic Safety Administration (NHTSA). Pursuit of safety on our nation's roads is an endless journey, but certainly, one worth travelling. Every day that safety is a priority on our nation's roads is one in which lives are saved and the overall interconnected transportation network operates more efficiently.

Unfortunately, any discussion of safety must necessarily address the very real problem of drunk driving. Sadder still, ongoing Federal-State-Local efforts to weed out impaired drivers from our roadways must now also focus especial attention on the growing numbers of young, often underage impaired drivers.

There are many issues that challenge NHTSA's safety first mission. However, whether the issue is helmet, or seat belt usage, the adequacy of child restraint devices, or the physical composition of the vehicle itself, the question of safety will always come back to the driver, and how he or she reacts to ever changing traffic conditions. Under optimal circumstances, motor vehicle traffic offers a daily myriad of challenges and very little margin for error. Certainly, impaired motorists must be detected before they cross the line.

Last year, almost 40,000 men, women, and children lost their lives in traffic accidents. I am sad to say, 1,100 of those fatalities were Tennesseans. And, like the national average, 47 percent, or nearly one-half of the fatalities on Tennessee highways involved the use of alcohol.

Fatalities represent the ultimate cost of traffic accidents. Also to be considered are the enormous numbers of people being injured, many requiring hospitalization, as a result of motor vehicle accidents. Last year alone, approximately 5 million persons were injured in accidents. And, according to NHTSA's own data, the number of injuries appears to be increasing.

Accidents take a heavy personal toll on society as a whole and on individual families. Beyond that, accidents drain the nation's economy, placing an unfortunate, yet unnecessary, burden on the nation's health care system. According to NHTSA, "vehicle crashes, fatalities, and injuries cost society over $137 billion annually in lost productivity, medical costs, property damage, and other direct expenditures". With the complex task of health care reform just around the corner, improvements in the nation's highway safety record can contribute significantly to containing health care costs.

Improving the nation's traffic safety record requires cooperation at every level to keep drunk drivers off the roads. Efforts must be redoubled to educate drivers, particularly young drivers, against the perils of drinking and driving. However, education alone is not enough. We must have tough, consistent drunk driving laws across the nation, laws that say what they mean and mean what they say. Not only must drunk driving laws have teeth, the enforcement community must have the will and the perseverance to revoke licenses, and, where necessary, jail repeat offenders.

Much work remains to be done in this critical area. In Tennessee, an important step was taken with the passage of the Drug Free Youth Act. Simply stated, the Drug Free Youth Act denies a license to any teenager who violates the State's drug and alcohol laws. As a result of that Act, Tennessee courts have revoked or denied the licenses of 9,270 teenagers found guilty of drug and/or alcohol offenses. More than that, because of the Drug Free Youth Act, many teenage lives have been saved.

The issue of highway safety is an ongoing challenge. We in the Congress will continue to look to NHTSA for leadership and guidance in maintaining the highest standards of safety.

I look forward to hearing the testimony.

INTRODUCTION OF WITNESS

Senator LAUTENBERG. This morning, we are going to hear testimony from the Surgeon General, as well as the president of Mothers Against Drunk Driving, an association for which I have a great deal of respect, and one with which I have had a long working relationship. We will also hear from the primary highway safety official from the State of New Jersey, who this year is serving as chairman of the National Association of Governors Highway Safety Representatives. And we are going to hear from the National Highway Safety Administration to learn more about what the Federal Government is doing.

And with that, I would like to call the Attorney General to the stand. What did I say, Attorney General? How do you like that? What have I got on my mind this morning? I am sorry.

Dr. Novello, you are just so capable, I think you could do any job that was assigned to you.

Dr. NOVELLO. Thank you. Sometimes, when one deals in alcohol, if I would be the Attorney General we would have fewer problems.

Senator LAUTENBERG. Well, that is an incentive for a new Attorney General. Thank you very much for being with us. We look forward to your testimony.

STATEMENT OF DR. NOVELLO

Dr. NOVELLO. Thank you very much, Chairman Lautenberg. It is an honor to be with you this morning and have the chance to congratulate you for your leadership. Now that I know first hand what you were up against, I must tell you that the enactment of the National Minimum Drinking Age Act of 1984 was an amazing feat. As I prepare to leave office, I would like to take this opportunity to share with you some insights from the 3 years I have spent as Surgeon General working to prevent illegal underage drinking.

The views I present today are my own, and most importantly, they do not necessarily reflect the position of the new administration. However, I hope the observations that I have are helpful to both this committee and to the new administration in considering what to do to prevent illegal underage drinking in this country, and as a consequence, drunk driving.

I would like to begin by sharing the report card I issued to the country on underage drinking at the end of April 1993, which was alcohol awareness month. The poor grades we received as a Nation should alert us to how much still needs to be done and to the actions we must take to improve our efforts to control illegal underage drinking.

Since I became Surgeon General, I have learned a great deal about illegal underage drinking, but most importantly I have learned that this country is in need of alcohol education 101, from the townhalls to the halls of Congress. And over the past 2 years I have shared findings from the invaluable set of reports prepared for me by the HHS Inspector General on the issue of illegal underage drinking.

One of those reports was on State and local enforcement of underage drinking laws called "Laws and Enforcement: Is a 21-Year-Old Drinking Age a Myth?" At that time, I also released a compendium of State laws on using alcohol. And the report showed that the National Minimum Drinking Age Act of 1984 absolutely has had a positive effect on reducing teenage traffic crash fatalities. And it has helped to save 1,000 lives a year, and this is directly attributable to the law.

But I must tell you that at the same time, the enforcement of the law at the State and local level is largely a myth. Two-thirds of teenagers still in this country, about 7 million of them, can simply walk into a store and buy booze and no one is there to supervise them.

I must tell you that the exceptions contained in the National Minimum Drinking Age Act of 1984 have contributed in large part to this poor enforcement. They have allowed for the loopholes to hinder the efforts of the States and have aggravated the problem of illegal underage drinking in this country. This is why in my report card to the Nation, although I gave the Federal Government an A for passing the act, I gave the States and localities a C for its implementation.

While the States can close loopholes, many, because of the exceptions in the Federal law, have not done so. For example, in five States and the District of Columbia, it is not totally illegal to purchase alcoholic beverages by minors. In 38 States, possession of alcohol is not specifically illegal. In 21 States, consumption of alcohol by minors is not specifically illegal, and in 44 States, minors themselves can sell and serve alcoholic beverages and there is no one to supervise.

Let me be clear here. Most of these problems are not entirely due to ineffective law or lackadaisical attitudes on the part of States and local governments aimed at enforcing the law. Many States have said that they have difficulty enforcing the law because of budget, because of staff constraints, because of low priority to enforce, and because of the lack of alcoholic beverage control board or ABC jurisdiction over minors.

Law enforcement also tells me that parents do not like their children to be arrested for doing what everyone else does. One official described enforcement of alcohol law as a no-win situation, and another commented that local police have higher priorities like illicit drugs, and they do ignore alcohol. Likewise, most frequently there are only nominal penalties against vendors and minors when they violate the law, and while the vendors may incur fines or have their licenses suspended, license revocations in this country are extremely rare.

The penalties against the youths who violate the laws are often not deterrents, and even when strict penalties exist, courts are lenient and do not enforce them. All is not negative, however, because some States and localities, in spite of everything, have adopted many innovative approaches to enforce underage drinking laws.

For example, 27 States delay, suspend, or revoke a drivers license when a young person is drinking or in illegal possession of alcohol. Ten States ask vendors to require a signed statement if they are doubtful about the legality of the person's ID, and this has the benefit of protecting the vendor against penalties, and some States even require signed affidavits from the minors themselves.

Education of vendors has helped to reduce the sales to minors, and 11 States mandate vendor training. Twenty-three States have civil liability or "dram shop" law and 10 States have social host law. Only South Dakota prohibits such suits, and in 1985 the American Bar Association recommended that all States enact statutes to allow law suits against persons who knowingly sell alcohol to minors.

Some States require community service or enrollment in a treatment or counseling program, some States use sting operations, and other effective practices used by States include sending letters to the parents about the law, having parents attend treatment or counseling with their child, toll-free numbers for complaints, press releases with the names of minors arrested for alcohol violations, publication of the results of vendor sting operations, and requiring vendors to post notices listing penalties for serving to minors and penalties for minors themselves. For innovations like these, I gave States and localities an A.

Now, having said all that, and before I describe what the Federal Government and all of us can do to help remedy this situation, let me tell you about the entire report card on underage drinking, where the efforts of the Federal Government, the States, the localities, and the alcohol industry were rated.

On reducing illegal underage drinking overall, I gave the Nation a C+. Although I gave high marks to the Federal, the State, and the local governments for enacting and implementing the national 21-year-old drinking age and to the alcohol industry for some of their educational programs, I am still dismayed that nearly 14 percent of eighth graders in this country still binge, and 26 percent of eighth graders in this country are still current drinkers. The percentage is up from the last count.

On the report card on reducing minors' access to alcohol, I gave the Nation a C+. Although I did credit some in the alcohol industry for helping local communities with the so-called point of sale campaigns to increase alcohol awareness, I gave a C+ to States and localities for their inconsistent efforts to increase public and vendor awareness of the 21-year-old drinking age.

On improving alcohol labeling, I gave a C+. Although I gave the Federal Bureau of Alcohol, Tobacco and Firearms a B+ for issuing rules allowing alcohol content to be put on beer labels, I gave a D to the alcohol industry for its efforts to diminish the overall effect and noticeability of the product warning labels.

On eliminating misleading alcohol advertisements overall, I gave the country a D. Although I gave the Federal Government an A for the effort and commitment, I gave them a D for results because we still operate under postprohibition-era laws that do not reflect the concerns of today's consumers. I also gave the States and the localities a C. Although it is difficult, it is not impossible for States to regulate a national advertising campaign. I acknowledged those few that have issued strong regulations governing alcohol advertising within their borders where more States need to take much action, however.

To the alcohol industry I gave an overall grade of D. This translates into a B for the wine industry and the distilled spirit industry because their ad sells the product and not the sizzle. To the beer industry, however, I gave them a D, and that, believe me, is very, very, very fair. After all the time I have spent working with the brewers, I would certainly have liked to see more than merely a revised advertising code and the elimination of industry representatives on campuses, not to mention the simple exchange by one brewer of bikini clad beauties for beautiful big horses.

One last note on alcohol advertising. We must all demand that misleading alcohol ads that entice our youth and avoid dealing with the consequences of the behavior depicted in the ad be taken far more seriously. I maintain very strongly that it is not enough to require alcohol warning labels in alcohol advertising. The day is coming when public opinion will force these ads off the air if the alcohol industry does not become more responsible. And as I feel the pulse of the country, I have the feeling that this day is closer than we think.

On recognizing the true consequences and extent of underage drinking, overall, I give the country an incomplete. Many of you know, there is much more to alcohol than dying. There is much more to alcohol than cirrhosis of the liver. There are tragic consequences that we hardly ever speak about, and I think it is time for us to talk about them:

Alcohol has been linked to poor school performance; 28 percent dropout in the first year of college because of alcohol; involvement in vandalism, theft, truancy, and the added pain of suicide.

Those who have been drinking are almost twice as likely to be injured than those who have not been drinking at all. Approximately one-third of our young people who commit crimes have consumed alcohol just prior to the commission of the crime. And one-half of college students who were crime victims admitted to being under the influence of alcohol and drugs at the time of the crime.

Alcohol misuse is involved in the vast majority of sexual assaults, date rape, and risky sexual behavior.

Yet, less than one-half of the parents interviewed by Peter Hart & Associates in June 1992 said that heavy drinking was a problem in their children's life. This totally reflects incomplete understanding of the problem.

I must also alert you to the fact that there is an overall complacency about the designated driver campaign as well. After all, it is successful. We may not recognize more serious problems because of its very own success.

For example, in the Inspector General's report that I forwarded to the Congress, 92 percent of the students surveyed said that a person should never drink and drive; however, 7 million of the students have accepted rides from people who have been drinking, and almost one-half of the students who drink have been a passenger in a car that a friend drove after drinking.

I give high marks to MADD, NCADD, RID, SADD, and others, because they continue to promote good prevention efforts no matter what. However, let us not close our eyes to the reality by believing that a designated driver is the only solution for our children who drink.

I wish I had better news to report.

In general, our efforts to reduce illegal underage drinking have been mediocre. And our progress as a Nation on making some parts of the industry accountable has been dismal. The major reasons preventing us from doing better is societal apathy and even good humored tolerance—a kids-will-be-kids attitude. This complacency is killing our children, and it is time we all wake up to the fact that alcohol is a drug and is the most powerful and abused drug we have in this country today.

So I would say, for the reason for which we are here today, how to improve enforcement of the 21-year-old drinking age act. I have said repeatedly that the States are in the driver's seat when it comes to implementing and enforcing the law. We at the Federal level can do all the talking and all the alerting to the problems we want, but the States are the key players here.

Creative State innovations I have mentioned earlier have been extremely valuable. We at the Federal level need to publicize such innovations so that other States can adopt them if appropriate to their jurisdictions.

Senator LAUTENBERG. Dr. Novello, I wonder if you could just highlight the next points.

Dr. NOVELLO. I will. And I will submit the rest for the record.

There is an interesting proposal I want to share with you to address the resources and comes from the States. I understand that the National Conference of State Liquor Administrators is working to improve enforcement and collection of the Federal tax, which is the special occupational tax, or the SOT, on liquor retailers—improved enforcement that could add between $20 to $30 million to the Federal coffers.

The State Liquor Administrators have proposed that this additional $20 to $30 million, when collected, be sent back to the States to be matched by the States and used for vendor training and enforcement of underage drinking law. This proposal is revenue-neutral for the Federal Government and a boon to financially strapped States. I urge everyone to look at this very carefully.

And more importantly, let me pass on to you the innovations stressed during the December 1992 3D, drunk and drugged driving, prevention effort: Administrative license revocation, the so-called zero tolerance law for illegal underage drinking, and the lower blood alcohol limits. Some of these laws can absolutely protect the youth and send the right message. Whether there should be a national requirement for any one of these innovations is an issue for your deliberation.

PREPARED STATEMENT

I appeal for you to continue to work as you have already done to keep underage drinking on the national agenda. And as we leave, I will submit the points that I want for the Nation for the record.

I thank you very much for the opportunity to share with you my experiences, and I will be happy to answer any questions you may have.

[The statement follows:]

STATEMENT OF ANTONIA C. NOVELLO

Thank you, Chairman Lautenberg. It is an honor to be with you this morning and have the chance to congratulate you for your leadership. Now that I know first-hand what you were up against, I must tell you that the enactment of the National Minimum Drinking Age Act of 1984 was an amazing feat.

As I prepare to leave office, I would like to take this opportunity to share with you some insights from the three years I have spent as Surgeon General, working to prevent illegal underage drinking. The views I present today are my own and do not necessarily reflect the position of the new Administration.

However, I hope that my observations are helpful to both this committee and to the new Administration in considering what to do to prevent illegal underage drinking. I would like to begin by sharing the report card on underage drinking that I issued to the Nation at the end of April, which was Alcohol Awareness Month, 1993. The grades we received as a Nation should alert us to how much still needs to be done and to the actions we must take to improve our efforts to control illegal underage drinking.

Since I became Surgeon General, I have learned a great deal about illegal underage drinking—most importantly, I've learned that this country is in need of "Alcohol Education 101"—from the town halls to the halls of Congress. Over the past two years, I have shared findings from the invaluable set of reports prepared for me by the HHS Inspector General on the issue of illegal underage drinking.

One of those reports was on State and local enforcement of underage drinking laws called, Laws and Enforcement: Is the 21 Year-old Drinking Age a Myth? At that time I also released a Compendium of State Laws on Youth and Alcohol.

These reports showed that:

—The National Minimum Drinking Age Act of 1984—absolutely has had a positive effect on reducing teenage traffic crash fatalities. It has helped to save a thousand lives a year—and this is directly attributable to the law.

—But I must tell you, at the same time, its enforcement at the state and local level is largely a myth. Two-thirds of teens who drink—almost 7 million kids—can simply walk into a store and buy booze, and no one is there to supervise.

I must tell you that the exceptions contained in the National Minimum Drinking Age Act of 1984 have contributed in large part to this poor enforcement. They have allowed loopholes that have hindered the efforts of the states and have aggravated the problem of illegal underage drinking in this country.

This is why, in my report card to the Nation, although I gave the Federal government an A for passing the Act, I gave the states and localities a C for its implementation.

While States can close loopholes, man—because of the exceptions in the Federal law—have not done so. For example:

—In five States and the District of Columbia, purchase of alcoholic beverage by minors is not specifically illegal.

—In 38 States, possession of alcohol by minors is not specifically illegal.

—In 21 States, consumption of alcohol by minors is not specifically illegal.

—And in 44 States, minors themselves can sell and serve alcoholic beverages, without adult supervisors.

Let me be clear about one thing here, however. Most of these problems are not entirely due to ineffective law or lackadaisical attitudes on the part of State and local governments aimed at the law's enforcement. Many States have difficulty enforcing these laws either because of budget and staff constraints, low priority to enforce, and/or lack of Alcoholic Beverage Control Board or "ABC" jurisdiction over minors.

Law enforcement officials also point out that parents do not like their children arrested for "doing what everyone else does." One official described enforcement of alcohol laws as "a no-win" situation. And another commented, "Local police have another priority—[illicit] drugs. They ignore alcohol."

Likewise, most frequently, there are only nominal penalties against vendors and minors when they violate these laws. While vendors may incur fines or have their licenses suspended, license revocations are rare. The penalties against the youth who violate the laws are often not deterrents, and even when strict penalties exist, courts are lenient and do not enforce them.

All is not negative, however, because some states and—localities have adopted many innovative approaches to enforce underage drinking laws. For example:

—Twenty-seven states delay, suspend, or revoke a driver's license when a young person is drinking or in illegal possession of alcohol.

—Ten states ask vendors to require a signed statement if they are doubtful about the legality of the person's ID. This has the benefit of protecting the vendor against penalties, and some states even require signed affidavits from the minors themselves.

—Education of vendors has helped to reduce sales to minors. Eleven states mandate vendor training.

—Twenty-three states have civil liability or "dram shop" laws, and ten states have social host laws. Only South Dakota prohibits such suits. In 1985, the American Bar Association recommended that all States enact statutes to allow lawsuits against persons who *knowingly* sell alcohol to minors.

—Some states require community service or enrollment in a treatment or counseling program.

—Some states use sting operations. These operations consist of sending minors into stores and restaurants to purchase alcohol. If the employee sells alcohol to the minor, an undercover agent will cite or arrest the employee and/or the vendor.

—Other effective practices include: sending letters to parents about the law; having parents attend treatment or counseling with their child; toll-free numbers for complaints; press releases with the names of minors arrested for alcohol violations; publication of the results of vendor sting operations; and requiring vendors to post notices listing penalties for serving to minors, and penalties for minors themselves.

For innovations like these, I gave states and localities in my national report card an A.

Now, having said that, and before I describe what the Federal government can do to help remedy this situation, let me give you the entire report card on underage drinking to the country, where the efforts of the Federal government, the states and localities, and the alcohol industry were rated:

On reducing illegal underage drinking, OVERALL GRADE: C+

Although I gave high marks to Federal, state and local governments for enacting and implementing the national 21-year-old drinking age, and to the alcohol industry for some of their education programs, I am dismayed that nearly 14 percent of eighth graders still "binge", and 26 percent of eighth graders are current drinkers—both percentages up from last year.

On reducing minors' access to alcohol, OVERALL GRADE: C+

Although I did credit some in the alcohol industry for helping local communities with so-called "point of sale" campaigns to increase alcohol awareness, I gave a C+ to states and localities for their inconsistent efforts to increase public and vendor awareness of the 21-year-old drinking age.

On improving alcohol labeling. OVERALL GRADE: C+

Although I gave the Federal government—the Bureau of Alcohol, Tobacco and Firearms (BATF)—a B+ for issuing rules allowing alcohol content to be put on beer labels, I gave a D to the alcohol industry for its efforts to diminish the overall effect and noticeability of product warning labels.

On eliminating misleading alcohol advertisements. OVERALL GRADE: D

Although I gave the Federal government an A for effort and commitment, I gave them a D for results, because we still operate under post-Prohibition-era laws that don't reflect the concerns of today's consumers.

I also gave the States and localities a C. Although it is difficult, if not impossible, for states to regulate a national advertising campaign, I acknowledge those few that have issued strong regulations governing alcohol advertising within their borders. More states, however, need to take such action.

And to the alcohol industry I gave an overall grade of D. This translates into a B for the wine industry and the distilled spirits industries because their ads sell the product and not "the sizzle".

The beer industry, however, got a D—and that is very, very fair. After all the time I've spent working with the brewers this last year, I would certainly have liked to see *more* than merely a revised advertising code and the elimination of industry representatives on campuses—not to mention the simple exchange by one brewer of bikini-clad beauties for beautiful big horses!

One last note on alcohol advertising—I maintain it is not enough to require alcohol warning labels in alcohol advertising. What we must all demand is that misleading alcohol ads that entice our youth and avoid dealing with the consequences of the behavior depicted in the ads have to be taken far more seriously. The day is coming when public opinion will force these ads off the air—and as I feel the pulse of the country, this day is closer than we think.

On recognizing the true consequences and extent of underage drinking. OVERALL GRADE: Incomplete

My friends, as you well know, there is much more to alcohol than dying—much more to alcohol than cirrhosis of the liver. There are the tragic, yet seldom-discussed consequences that few people ascribe to alcohol use:

—Alcohol has been linked to poor school performance, involvement in vandalism, theft, and truancy, and the added pain of suicide.

—Those who have been drinking are almost twice as likely to be injured than those who have not been drinking at all.

—Approximately one-third of our young people who commit serious crimes have consumed alcohol just prior to the commission of the crime, and one-half of college students who were crime victims admitted to being under the influence of alcohol and/or drugs at the time of the crime, as well.

—And alcohol misuse is involved in the vast majority of sexual assaults, date rape, and risky sexual behavior.

Yet less than half of the parents interviewed by Peter Hart and Associates in June 1992 said heavy drinking was a problem in their children's lives. This reflects incomplete understanding at best.

I must also alert you to the fact that this overall complacency includes complacency about the designated driver campaign as well—because, after all, it has been successful. We may not recognize other, more serious problems—because of its very success.

—Although 92 percent of the students surveyed by the Inspector General said a person should never drink and drive, almost a third of all students have accepted rides from drivers who had been drinking. And almost half of the students who drink have been a passenger in a car that a friend drove—after drinking.

I give high marks to groups like MADD, NCADD, RID, SADD, and others, however, because they continue to promote good prevention efforts. However, let's not close our eyes to the reality by believing that a designated driver is the *only* solution for our children who drink.

I wish I had better news to report. In general, our efforts to reduce illegal underage drinking have been mediocre. And, our progress as a Nation on making some parts of the industry accountable—is dismal.

The major reason preventing us from doing better is societal apathy, even good-humored tolerance—a "kids will be kids" attitude. This complacency is killing our children: it is time we all wake up to the fact that alcohol is a drug—and it is one of the most powerful and abused drugs we have in our country today.

Now let me turn to the issue of the day—illegal underage drinking and driving and what we all can do to prevent it, and how to improve enforcement of the 21-year-old drinking age act.

In fact, as I have said repeatedly, the states are in the driver's seat when it comes to implementing and enforcing the law. We at the Federal level can do all the talking and promoting of these problems all we want, but the states are the key players here.

The creative state innovations I mentioned earlier are valuable. At the Federal level, we need to publicize such innovations so that other states can adopt them if appropriate to their jurisdictions.

An interesting proposal I want to share with you addresses resources and comes from the states.

I understand that the National Conference of State Liquor Administrators is working to improve enforcement and collection of the Federal tax ("special occupational tax" or SOT) on liquor retailers—an improvement that could add between $20–30 million to the Federal coffers.

The state officials have proposed that this additional $20–30 million be sent back to the states, to be matched by the states and used for vendor training and enforcement of underage drinking laws. This proposal is revenue neutral for the Federal government and a boon to financially-strapped states. I urge you to look it at very carefully.

Let me also pass on to you the innovations stressed during the December 1992 3D (Drunk and Drugged Driving) Prevention effort: administrative license revocation; the so-called "zero tolerance" laws for illegal underage drinking: and lower blood alcohol limits. Some of these laws can help protect youth and send a consistent message about drinking. Whether there should be national requirements for any of these innovations is an issue for your deliberation.

I appeal to you to continue the work we have done together to keep illegal, underage drinking on the national agenda. Let us agree to the following common agenda:

—To view health warning labels on alcoholic beverages as public education—and to see that these labels are strengthened and improved.

—To press for better state and local underage drinking laws—and better enforcement of those laws. To advocate innovative approaches like automatic license revocation, and substantial and enforced fines on both vendors and youth offenders.

—To see that adults are held responsible for underage drinking, and to support dram shop and social host laws in our states and communities.

—To eliminate or severely restrict alcohol ads that portray recreational or "risky" activities without alerting the kids to the consequences of such actions.

—To give power to the Federal Trade Commission and the Bureau of Alcohol, Tobacco, and Firearms to do more than narrowly interpret the advertising provisions of the FAA Act (e.g., provisions regarding ads that are "false, misleading, obscene, and indecent.") To have real clout, they should be able to enforce the law broadly and define for whom, specifically, the ads are false or misleading.

—To start education early regarding alcohol in our schools, our communities and our families.

My hope is that some day, we will be able to:

—convince society that getting drunk every weekend is not a rite of passage for our young people;

—convince merchants that selling booze to the underage is not responsible;

—convince our students that there is more to one's social life than wild parties; and

—convince the alcohol industry that we are all responsible for our children.

Until we as a Nation face these challenges squarely, we will continue to part of the problem as we look the other way, condoning the use of alcohol by our children. To do so is to perpetuate the cycle of alcohol-related tragedy and misfortune that continues to ensnare our young people.

RESULTS OF POOR GRADES ON REPORT CARD RATINGS

Senator LAUTENBERG. Thank you very much, Dr. Novello.

I have to tell you, by my judgment, not only are you a very conscientious educator—I do not think unnecessarily harsh in terms of the report card that you gave out—but if one looks at that report card, it is a pretty sorry-looking spectacle, when you realize that poor grades on this report card mean that young people either die or are injured, many of them very seriously and permanently.

So we thank you very much.

I am joined here by my colleague from the other side of the river with whom I work closely, because our region is one that is affected by drunk drivers. We come from areas where there is significant entertainment and recreation. There is a tendency to just have fun and forget that when you get behind the wheel of a car, if you have had too much to drink, you are impaired and you could cause great havoc.

Did you want to make a statement?

STATEMENT OF SENATOR D'AMATO

Senator D'AMATO. Mr. Chairman, I have a statement that I would like to submit for the record.

Obviously, this hearing is important to find out where we are in dealing with this problem. I suspect that the problem is even worse than Dr. Novello's report card has indicated. I suspect that we are not really focusing in on this problem of alcoholism with our youngsters, because it is so personal and it affects so many, and it is such a difficult area to confront.

We are very shortsighted in this. I do not know whether or not in the task force which Mrs. Clinton is heading they are taking an appropriate look at what the cost factors are and the implications of alcoholism, not only in terms of traffic deaths, but in so many other areas. I think that the problem is that we have an epidemic on our hands with youngsters, and we are just looking the other way.

As Dr. Novello said, alcohol is a drug. And it is not only a drug, but it is a drug that has become so pervasive in its use that young people will tell you: How can I abstain when the whole social setting is so often built around the use of alcohol? And that makes it particularly difficult.

I just do not know the answer to that. That is why I think it is important that we do focus in at this hearing and others. Hopefully, we will begin to at least create an awareness, and hopefully, by the awareness, attempt to move forward in bringing forth the kinds of programs that can get youngsters an opportunity to get treatment.

Youngsters, oftentimes, feel an aversion to becoming involved in probably the only successful program to date, which is AA. I challenge those who say that an alcoholic can imbibe and can drink moderately. That is just absolute nonsense. And yet, you have some who would counsel that way. So, until there is really a full appreciation and an understanding of the disease and how it comes about, we are going to continue to muddle around.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you, Senator D'Amato. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Mr. Chairman, today we will hear from the National Highway Traffic Safety Administration [NHTSA] regarding their fiscal year 1994 budget proposal.

The subcommittee's specific focus is on the problem of drunk driving, so I am especially glad to welcome as additional witnesses: Dr. Antonia Novello, Surgeon General; Mrs. Kirk, President of Mothers Against Drunk Driving [MADD]; and Mr. Jim Arena, New Jersey Highway Safety Representative.

The administration has proposed $307 million for NHTSA operations, research and grants to States. This is an increase of 14 percent (+$37.1 million) over current levels and is mainly targeted for NHTSA's State safety grant programs.

NHTSA proposes $130 million for operations and research, which includes funds to train local police to detect and deter alcohol and drug-impaired drivers. In addition, $177 million is proposed in obligation limit for highway safety grants to States, an increase of $35.4 million over current levels ($25 million of which is for the Section 410 alcohol grants). Section 402 highway safety formula grants would receive $123 million (a $8 million increase). Section 153 grants, proposed at $15 million, would create an incentive for States to pass motorcycle helmet and safety belt use laws.

Thank you, Mr. Chairman.

ALCOHOLISM

Senator D'AMATO. I would like to pose one question to Dr. Novello, Mr. Chairman, with your indulgence. Should we have or attempt to develop, if not, a definition then an understanding of the disease itself—alcoholism? I have never, to date, seen this discussed in the broader context so that people can understand it. And are we not doing a disservice by not having this?

I think that many in the medical profession are either without the resources or the training or simply ducking out because of their own personal experiences, either themselves or with their family.

But this is a problem that is pervasive, and we seem to be copping out.

Dr. NOVELLO. Well, I think your question is an excellent one, and I would like to address it in three short and, I think, important parts.

The most important one is that, yes, we know what alcoholism is, but in the United States there is a lot of confusion. Even the name that we give to kids who drink one drink after the other—we call them "bingers"—is actually preventing them from realizing that when they turn 21 they are alcoholics, but if they are under 21, they are "bingers."

The other thing that is important is most of the kids don't know when I ask them: "Do you know what alcohol does to you?" There is not enough research on what happens to the growing body. So kids believe that alcoholism is cirrhosis, and an alcoholic is the person you see in the gutter, but not the one who works every day and has fun on Saturdays and Sundays.

Only 5 percent of the kids who drink with problems come to treatment through a doctor's referral; 70 percent come through the court or the social worker. There is very little research that shows the physiological consequences of growing up and drinking, rather than the sociological effects of being an older drinker. When you pass 21, you are not protected as being the binger, but are then considered an alcoholic.

Now that I am about to leave this job, one of the things that people always ask me is: What can we do? When I ask the kids, the kids tell me: "Do you know that a six-pack of coke costs me more than a six-pack of beer?"

So they tell me, "If I have an hour with a six-pack, I have more fun than taking my girlfriend to the movie that might cost me $20 if she wants popcorn and a coke." there you have the reality.

Somebody said, "Dr. Novello, how can we can get the kids to be able to pay more attention to this—kids are no different than adults, they love their pocketbook." I am only going to share with you what data has shown—two out of three kids do not know the difference between alcoholic and nonalcoholic beverages by the way the bottle is shaped or the label reads. But, more importantly, 55 percent of them believe that wine and a shot of vodka has alcohol, but beer does not.

In this country we have one-half million kids who binge every week, one shot after the other, five drinks in a row—they are usually 16, white, in 10th grade. When we look into this, data has shown that there is one thing that kids listen to, and it is this. The data have shown that when you increase the price of beer by 10 cents there will be a concomitant drop in the incidence of drinking by 10.8 percent in illegal underage drinkers.

A study was also done in 1987 and 1988 by Grossman. He said the alcoholic beverage preferred by youth is beer. And therefore, he says, if beer would be taxed at least a little bit, you would be able to diminish the ranks of underage drinking between the ages of 16 and 21 by 11 percent, and those who binge in that age group by 15 percent. And let me remind you that beer is taxed one-half of what distilled spirits is taxed.

And there is the issue of cost—for every 23 cents that you pay me in your tax on beer, I pay you back 48 cents on taking care of your crashes, of your emergency calls, and of the judicial system to take care of your fines.

So think about this as you seek solutions to illegal underage drinkers and traffic crashes, and you will find that if you want to bring money into the States' coffers, look into making sure that our alcohol excise taxes reflect the fact that one can of beer, 4 ounces of wine, one shot of whiskey, and one wine cooler, all contain equivalent amounts of alcohol. And, remember, for every 23 cents in alcohol excise taxes, it costs society 48 cents—particularly when the victim is involved in a car crash.

Senator LAUTENBERG. Whose report was that on the variation between cost increase and decline in alcohol use?

Dr. NOVELLO. That was Grossman, et al., 1987 and 1988, and I can submit it for the record.

Senator LAUTENBERG. If you would, submit it for the record.

[The information follows:]

PRICE SENSITIVITY OF ALCOHOLIC BEVERAGES IN THE UNITED STATES:

YOUTH ALCOHOL CONSUMPTION

Michael Grossman, Douglas Coate,
and Gregory M. Arluck

Since the mid-1970s in the United States, the federal government and various state and local governments have been involved in a campaign to reduce deaths from motor-vehicle accidents by discouraging alcohol abuse.

While such measures are designed to deal with alcohol abuse and motor-vehicle-accident mortality, increased taxation of alcoholic beverages, which results in higher prices, is another policy that might achieve the goals of the antidrinking campaign. This policy tool has not, however, been employed.

As in the case of recent state excise tax increases, the 1985 federal excise-tax increase was meant to expand tax receipts rather than to curtail alcohol consumption. Moreover, the excise taxes on beer and wine were not changed. In addition, while the real price of liquor undoubtedly will rise, it probably will fall over time because the tax increase is nominal.

In this paper we briefly review recent research on the sensitivity of alcohol consumption to its price. More important, we present the first set of estimates of the responsiveness of alcohol use by youths between the ages of 16 and 21 to variations in the price of alcohol. Our empirical research also contains estimates of the effect of an increase in the legal drinking age on youth alcohol use. Thus we are able to compare the potential impacts of alternative policies to curb youth alcohol abuse.[1]

Youth alcohol abuse is widespread and apparently growing. Approximately 27% of high-school students were classified as problem drinkers in a national survey conducted by the Research Triangle Institute (RTI) in 1974 (Rachal et al., 1975). This figure rose to 30% in RTI's 1978 survey

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Control Issues in Alcohol Abuse Prevention:
Strategies for States and Communities.
Advances in Substance Abuse, Suppl. 1, pages 169–198.
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ISBN: 0-89232-545-3

(Rachal et al., 1980). In national surveys of high-school seniors conducted by the Institute for Social Research of the University of Michigan, the percentage of students who reported heavy drinking occasions within the two weeks prior to the particular survey rose between 3 and 4 percentage points from 1976 to 1979 (Bachman, Johnston, & O'Malley, 1981).

Blane and Hewitt (1977) summarize a number of studies that suggest that the mean age at which children have their first drink fell from 13.6 years in 1965 to 12.9 years in 1975. The prevalence of teenage drinking rose between 1941 and 1965 but remained constant between 1965 and 1975. The percentage of teenagers intoxicated at least once in their lifetimes increased between the end of World War II and 1966 and then stabilized. Blane and Hewitt present tentative evidence that the rate of monthly intoxication rose between 1966 and 1975 from approximately 10% to approximately 19%. With regard to drinking by college-age youth, prevalence, frequency, and intoxication experiences all rose continuously between 1941 and 1975.

REVIEW OF AGGREGATE-DEMAND STUDIES

All previous research on the price sensitivity of alcoholic beverages has employed aggregate data in the form of time series for specific countries; for country-wide cross-sections and individual state cross-sections in the United States; and for province cross-sections in Canada. The time-series studies relate changes in alcohol consumption over time to changes in its relative price. The cross-sectional studies capitalize on differences in the price of alcoholic beverages at a moment in time among countries, individual states of the United States, or provinces of Canada primarily due to differences in country, state, or provincial excise-tax rates on alcohol. These studies trace variations in per capita alcohol consumption at one moment in time to variations in prices and taxes. The research techniques employed range from simple comparisons and bivariate correlations to the estimation of beverage-specific alcohol demand functions by ordinary least-squares multiple regression analysis and its modifications.

Cross-national comparisons reveal that per capita consumption of alcohol and death rates for cirrhosis of the liver are higher in countries with relatively low tax rates on alcoholic beverages (Popham, Schmidt, & de Lint, 1975; Smith, 1981; Gruchow, Rim, & Hoffman, 1983). Deaths from cirrhosis, alcohol-related traffic accidents, and hospital admissions with a primary diagnosis of alcoholism have been shown to be negatively correlated with the relative price of alcohol over time in Canada and the United Kingdom (Popham, Schmidt, & de Lint, 1975; Smith, 1981[2]). Such studies should be interpreted with caution because they do not control for (hold constant) such confounding variables as real per capita income.

More definitive evidence of the responsiveness of consumption of alcohol to its price is contained in multivariate estimates of beverage-specific alcohol-demand functions. These functions yield a summary measure of the magnitude of the increase in alcohol consumption caused by a decline in its price: the price elasticity of demand. This parameter is defined as the percentage change in alcohol consumption caused by a 1% change in price.

Studies completed since 1970 have yielded estimates of the price elasticity of liquor (distilled spirits) that range from −.13 to −1.80. The corresponding ranges of beer and wine price elasticities are −.11 to −1.39 and −.06 to −1.78, respectively (Hogarty & Elizinga, 1972; Comanor & Wilson, 1974; Labys, 1976; Smith, 1976; Barsby & Marshall, 1977; Johnson & Oksanen, 1977; Schweitzer, Intriligator, & Salehi, 1981; Cook & Tauchen, 1982; Clements & Johnson, 1983; Ornstein & Hanssens, 1983). The most recent estimates based on U.S. data are −1.80 for liquor (Cook & Tauchen, 1982), between −.11 and −.26 for beer (Ornstein & Hanssens, 1983), and between −.44 and −1.65 for wine (Labys, 1976).

The preceding studies have shed a considerable amount of light on the price sensitivity of alcoholic-beverage consumption in the United States. Certain problems arise, however, in using them to formulate policies to curtail alcohol use. First, demand functions estimated with time-series data are highly unstable because of the high correlations among income, price, and time. Second, in the state cross-sectional studies, figures for per capita consumption of a particular type of alcoholic beverage are obtained from data on state tax revenue derived from the excise tax on that beverage.[3] Unfortunately, the quantity of alcohol sold in a state may not accurately reflect the quantity actually consumed by the residents of that state. The reason is that excise taxes and prices vary substantially among states, while state alcoholic-beverage markets are not completely distinct or separable. Therefore, residents of high-price states have an incentive to obtain alcohol in a neighboring low-price state. Hence the quantity sold is an underestimate of the quantity consumed by residents of high-price states and an overestimate of the quantity consumed by residents of low-price states. It follows that existing cross-sectional price elasticities may overestimate in absolute value the true magnitude of the elasticity. Although Wales (1968) and Smith (1976) have tried to control for the border phenomenon (out-of-state purchases), their techniques have been criticized by Cook and Tauchen (1982).[4]

Third, and most important, aggregate alcohol-demand studies employ data on per capita consumption by all age groups as the dependent variable. Therefore, the estimated price elasticities primarily reflect adult drinking behavior and cannot be used to predict how youths would respond to excise tax and price changes. As pointed out in the introduction to Part IV, however, it is especially important to focus on youths in the context of the antidrinking campaign.

It should be noted that, even if price elasticities associated with adult drinking patterns are relatively small (inelastic) in absolute value, this need not be the case for youth price elasticities. Given the habitual nature of alcohol abuse, adult users, who almost always have been users for longer periods of time than youths, may be much less sensitive to price than youths. In addition, the fraction of his or her disposable income that a youthful drinker spends on alcohol probably exceeds the corresponding fraction of an adult drinker's income. It is well known that the uncompensated (money-income constant) price elasticity of a good rises as the fraction of income spent on that good rises. Finally, bandwagon, or peer, effects are much more important in the case of youth drinking than in the case of adult drinking. That is, youths are more likely to drink if their parents, siblings, and peers also drink (see, for example, Jessor et al., 1968; Forslund & Gustafson, 1970; Globetti, 1972; McCord, 1972; Wechsler & Thum, 1973; Rachal et al., 1975; Shapiro, 1975; Blane & Hewitt, 1977; O'Connor, 1977). As shown by Leibenstein (1950) and by Lewit, Coate, and Grossman (1981), the presence of bandwagon or peer effects increases the price elasticity of demand.

A MICRO DEMAND STUDY OF YOUTH ALCOHOL USE: METHODOLOGY

Data and Subsample Selection

To examine the effects of alcohol prices on youth alcohol use, we use the first National Health and Nutrition Examination Survey (NHANES I) to estimate demand functions for alcohol consumption by youths.[4]

The demand function estimates are limited to data on youths aged 16 through 21, because we wish to compare the responsiveness of alcohol use to changes in price with its responsiveness to changes in the legal drinking age. Moreover, we focus on this age group because one of the primary aims of the policies in question is to lower the youth motor-vehicle-accident mortality rate. The rate of the group in question is exceedingly high, particularly if it is expressed in terms of per-licensed driver or per-miles driven (Voas & Moulden, 1980).

Data on youths below the age of 16 are excluded from the demand functions because they cannot drive legally in most states. Youths aged 16 and 17 are illegal drinkers in all states, but data on them are included in the demand functions because it is likely to be easier for them to obtain alcoholic beverages in a state with a legal drinking age of 18 than in one with a higher legal drinking age (Cook & Tauchen, 1984). Twenty-one-year-olds are legal drinkers in all states, but they are not excluded from the demand functions because the alcohol-consumption measures pertain to a one-year period prior to the date of the NHANES I examination. Moreover, 21-year-olds in states with a legal drinking age of 18 will have been legal drinkers for a longer period of time than similar youths in states with a legal drinking age of 19, 20, or 21. This may have an impact on their consumption of alcoholic beverages. Although the 16-through-21 age range is somewhat arbitrary, estimated demand functions of youths of slightly different ages (15 through 20 or 16 through 20) yield results that are very similar to those presented in the third section of this chapter.

Alcoholic-beverage prices and legal drinking ages have been added to the NHANES I survey based on a given youth's place of residence (primary sampling unit). As emphasized by Ornstein (1980), cross-sectional studies of the demand for alcoholic beverages have been hampered by inadequate price data, especially in the case of beer and wine. State- and time-specific retail prices of nine major brands of distilled spirits are contained in the *Liquor Handbook*, published by Gavin-Jobson. These prices include state excise taxes on distilled spirits but exclude local (county and municipal) excise taxes and state and local retail-sales taxes. Moreover, the prices are manufacturers' suggested retail prices rather than actual transactions prices. There are no similar compilations of state retail prices of beer and wine.[6] State excise-tax rates on beer and wine can be employed as proxies for the prices of these beverages, but they are not perfect correlates. With the state excise-tax rate on beer held constant, the price of beer can vary from place to place because of differences among local (county and municipal) excise-tax rates, state and local sales-tax rates, transportation costs, and the degree of competition in local markets. All these factors are relevant in the case of wine. In addition, monopoly (control) states derive most of their wine-sales revenue from the price markup rather than from excise taxes.

The source of the actual transaction prices of beer, liquor, and wine for many of the NHANES I primary sampling units was the *Average Retail Prices of Selected Commodities and Services, Fall 1971* (Bureau of Labor Statistics, 1973). The Department of Labor's Bureau of Labor Statistics (BLS) estimates and publishes the costs of goods and services included in an intermediate budget for an urban, four-person family in each of 39 large metropolitan areas (areas with a population greater than 250,000 persons) every year. To derive these estimates, the BLS obtains transactions prices of a variety of goods and services, including those of beer, liquor, and wine. Although the BLS publishes separate cost (price) data for food, housing, and transportation, it does not report detailed prices of goods and services because in many cases these prices are based on small samples of retail outlets in each metropolitan area.

In the fall of 1971 (September through November), the BLS conducted an experimental pricing program designed to provide average price data for research on place-to-place price differences. The number of retail outlets sampled in each area was increased and detailed prices were published. Unfortunately, the experiment did not continue beyond 1971, but it does provide alcoholic-beverage prices that can be correlated with data on NHANES I youths who resided in large metropolitan areas.

Of the 65 sample sites, 35 had a population in excess of 250,000. Three of the 35 sites were deleted from our working sample because they contained counties from more than one state and the states in question had different legal drinking ages during the examination period.[7] Since we could not identify the specific county of residence of a youth in a multiple-county site, the relevant legal drinking age in his or her state of residence could not be obtained. The remaining 32 NHANES I primary sampling units were matched with the 39 BLS metropolitan areas. In a large percentage of cases, a direct match could be made. If this was not the case, price data from a BLS site in the same state as the NHANES I site was used. In such instances, the BLS site was always similar in terms of the size of its population to that of the NHANES I site, and the two were located not far from each other. In a very small number of cases, prices were taken from a BLS site in a surrounding state. Here we made sure that the two states in question had similar excise-tax rates on beer and wine and similar liquor prices as reported in the *Liquor Handbook*. We also made sure that the sites in the two states were not very different in terms of population.

After deleting observations for which data were missing, we obtained a final sample of 790 youths.[8] All demand-function estimates pertain to this sample. In particular, they are relevant for youths who reside in large metropolitan areas and may not be generalized to apply to youths who reside in other areas. This caveat should be kept in mind when the results are presented and discussed in the third section of this chapter.

Measurement of Alcohol Use

The NHANES I alcohol-use measures for the final sample of 790 youths are summarized by the frequency distributions in parts A, B, and C of Table 1. These measures are subject to some peculiarities based on the form of the questionnaire. Youths were first asked how often they had drunk alcoholic beverages in the preceding year: every day, 2 to 3 times per week, 1 to 4 times per month, 4 to 11 times per year, 1 to 3 times per year, or never. Next, youths who drank at least 4 to 11 times per year were asked which beverage they drank most frequently: beer, liquor (distilled spirits), or wine. Finally, youths who drank at least 4 to 11 times per year were asked how many drinks they consumed in a typical drinking day, defined as a 24-hour period. This is a continuous variable, but it is converted into categories for the reasons indicated below. It follows that the beverage of choice and the number of drinks consumed on a typical drinking day are not known for youths who drank 1 to 3 times in the preceding year. These youths constituted 20.6% of our sample. In addition, separate data on the consumption of beer, liquor, and distilled spirits are not available for youths who drank at least 4 to 11 times in the preceding year.

We deal with the first of these problems by treating youths who drank one to three times a year as nonparticipants (nondrinkers) and with the second by assuming that youths whose beverage of choice was beer, for example, drank only beer. These assumptions are reflected in the fre-

Table 1. Drinking Measures, NHANES I[1]

A. Drinking Participation

Beer	31.14
Liquor	12.91
Wine	11.65
No Participation[2]	44.30

B. Drinking Frequency

	Outcome Category				
	Every Day	*2–3 Times Per Week*	*1–4 Times Per Month*	*4–11 Times Per Year*	*Never*[2]
Beer	2.02	6.71	16.84	5.57	68.86
Liquor	0.00	1.39	8.23	3.29	87.09
Wine	0.51	1.52	7.22	2.40	88.35

C. Number of Drinks on Typical Drinking Day

	Outcome Category			
	6 or more	*3–5*	*1–2*	*None*[2]
Beer	5.06	8.48	17.60	68.86
Liquor	1.14	3.29	8.48	87.09
Wine	0.38	3.67	7.60	88.35

Notes: [1]Sample size is 790. Each cell entry gives the percentage of all youths in that cell.
[2]Includes youths who drank one to three drinks in preceding year.

quency distributions in Table 1. Note that the overall drinking participation rate (the sum of the beer, liquor, and wine participation rates) is 55.7% (see part A of Table 1). This figure rises to 76.3% when youths who drank one to three times a year are included as participants. Note also that 68.9% of the sample did not drink beer in the preceding year (see part B, row 1, column 5 of Table 1). This includes nondrinkers (44.3% of the sample if those who drank 1 to 3 times are treated as nonparticipants), youths who indicated that liquor was their drink of choice (12.9% of the sample), and those who indicated that wine was their drink of choice (11.6% of the sample). Put differently, the number of times that a youth drank beer in the year previous to the study is positive only for the 31.1% of youths who said that beer was their drink of choice. Similar comments apply to the beverage-specific frequency distributions of the number of drinks on a typical drinking day in part C of Table 1.

Our treatment of youths who drank one to three drinks a year clearly understates the drinking participation rate. But it has the advantage of drawing a sharp distinction between youths who never or seldom drank and other youths. In addition, youths who seldom drank probably had only one drink during a typical drinking day and were unlikely to be the cause of such social costs associated with alcohol abuse as motor-vehicle accidents. Since youths who seldom drank were assumed to be nonparticipants, none of the effects reported in the third section of this chapter were due to a reduction in the percentage of such drinkers in response to increases in price or legal drinking age. That is, all these effects reflect the behavior of heavier drinkers. The assumption that youths who drink beer, for example, most frequently drink only this beverage can be justified because it is well known that beer is the drink of choice for most youths who consume alcoholic beverages.

In the estimated-demand functions, three measures of alcohol consumption are examined. These are beverage-specific participation, beverage-specific frequency of drinking (the five outcome categories in part B of Table 1), and the beverage-specific number of drinks on a typical drinking day (the four outcome categories in part C of Table 1). The multivariate techniques that are employed to deal with these dichotomous and polytomous dependent variables are discussed later in this chapter in the subsection titled "Estimation Techniques." Here it is important to note that, if it is assumed that youths who never or seldom drank alcohol in the preceding year never or seldom drank alcohol during their lifetimes, an examination of drinking participation provides some insight into the factors that determine the "age at onset" of alcohol consumption. This follows because those youths who did not drink in the preceding year—age held constant—postponed the decision to drink, or age at onset, relative to those who did drink in the preceding year. Age at onset has become a variable of interest, as pointed out in the introductory section, because of its apparent strong correlation with alcohol consumption and alcohol abuse among older youths and adults.

The frequency of drinking and the number of drinks consumed on a typical drinking day are important variables for several reasons. If alcohol use has a habitual component, the greater the frequency of drinking and the larger the amount consumed per drinking occasion, the more likely a youth is to become a heavy adult drinker. Frequent drinking and heavy drinking are states in which the antisocial effects of alcohol use, such as drunken driving, are likely to be most prevalent. We distinguish between drinking frequency and number of drinks consumed to allow for the possibility that price and legal-drinking-age effects may differ for these two outcomes. We convert the number of drinks consumed during a typical drinking day from a continuous to a categorical variable to allow for nonlinear and perhaps nonmonotonic effects. In particular, heavy, moderate, and light drinkers may not respond to price and legal-drinking-age changes in the same manner. In addition, it is more important to gauge the impact of a change in price on the percentage of youths who are heavy drinkers (those who drink six or more drinks per occasion) than to gauge its impact on the reduction in the number of drinks consumed by heavy drinkers.

Information on alcohol consumption was obtained directly from youths in NHANES I. Parents were not present during the interviews with the youths and were not informed of the responses of their children concerning alcohol use. Nevertheless, there is a possibility that, because youths may underreport their alcohol use, the alcohol measures may be inaccurate. If any such response error is uncorrelated with the independent variables in the demand function for alcohol, coefficients will be unbiased, although their standard errors will be inflated. In this case the existence of response error essentially presents no problem for the statistical analysis. Response error becomes a problem only if it is systematic or correlated with some or all of the variables in the demand functions. There is, however, no reason to expect systematic relationships between response error on the one hand and prices and legal drinking ages on the other hand.

All previous research on youth alcohol use cited in this paper is based on self-reported alcohol data. Moreover, the validity of the NHANES I measures is underscored by referring to the related problem of the measurement of delinquent behavior by adolescents. Gold (Johnston, Bachman, & O'Malley, 1977) has reviewed the literature on self-reported delinquent behavior of adolescents and concludes that "the best single measure of delinquent behavior available is self-report of delinquency, and [that] . . . it is accurate enough for use in rigorous research designs and with sophisticated statistics" (p. 190). An additional consideration is that the NHANES I drinking questions were included as a trivial part of a much larger survey that was focused on very different issues. Gordon and Kannel (1983) argue that this improves the quality of reports of alcohol consumption.

Measurement of Independent Variables

Table 2 contains acronyms, definitions, means, and standard deviations of the key independent variables in the demand functions. The prices of beer, liquor, and wine (PB, PL, and PW, respectively) were taken from the BLS price survey described earlier in the subsection "Data and Subsample Selection" and pertain to the fall of 1971. These prices include state and local excise and retail sales taxes. They could have been estimated for the entire period of the NHANES I sample by extrapolation based on the beer, liquor, and wine components of the consumer price index (CPI) for the United States as a whole. For example, in the case of beer, we could have assumed that the year-to-year percentage change in the site-specific price equaled the year-to-year percentage change in the price for the United States as a whole. This approach was not adopted because excise-tax rates on beer vary a great deal among states and are very stable over short periods of time. It follows that the percentage rate of increase in the price of beer over time in high-tax states is smaller than in low-tax states.[9] Therefore, the extrapolation procedure just described distorts cross-sectional variations in the price of beer. Recall that NHANES I was conducted between May 1971 and June 1974. Since al-

Table 2. Definitions, Means, and Standard Deviations of Independent Variables

Variable Name	*Mean*	*Standard Deviation*	*Definition*
PB	1.426	.122	Price of beer in dollars, alcoholic content 3.2% or more by weight, package of six 12-ounce cans
PL	5.275	.366	Price of liquor in dollars, whiskey, blended with grain-neutral spirits, 80 to 90 proof, blend consisting of at least 25% straight whiskies three years old or more and 75% or less of grain-neutral spirit, fifth-size bottle (four-fifths of a quart)
PW	1.137	.135	Price of wine in dollars, domestic red table wine, usually dry, standard quality, containing 10 to 14% alcohol by volume, fifth-size bottle, excludes sparkling Burgundy, rosé, pink wines, and vintage labels
LAB	19.984	1.393	Minimum legal age for purchase and consumption of beer, alcoholic content 3.2% or less
LAL	20.393	1.186	Minimum legal age for purchase and consumption of liquor (distilled spirits)
LAW	20.302	1.249	Minimum legal age for purchase and consumption of light wine, alcoholic content 14% or less
LADIFF	.149	.357	Dichotomous variable that equals 1 if youth lives within 20 miles of a state with a lower legal drinking age than his or her state of residence, computed separately for beer, liquor, and wine but the same value assumed for each beverage

cohol consumption pertains to the year prior to the date of the survey, the relevant period is April 1970 through May 1974. Our prices are specific to the eighteenth, nineteenth, and twentieth months of this 50-month period.

Alcoholic-beverage prices are entered in the demand functions in money (nominal) terms rather than in real terms. In our context, real prices are given by money prices divided by the CPI for all commodities (the cost-of-living index) in each of the BLS sites in 1971. Real prices were not used as regressors because the cost-of-living index pertains to a four-person family. Expenditure patterns and thus the cost-of-living index of this unit are likely to be very different from those of a youth between the ages of 16 and 21. It should be noted that beverage-specific nominal and real prices are highly correlated in a positive direction. The simple correlation coefficient between the two prices is .81 for beer, .82 for liquor, and .75 for wine. Put differently, there is no evidence that money prices of alcoholic beverages are higher in some areas than in others because the prices of all goods and services are higher in the former areas.

The minimum legal ages for the purchase of beer (alcoholic content 3.2% or less), liquor, and light wine (LAB, LAL, and LAW, respectively) were taken from Wagenaar's (1981/82) extremely painstaking and definitive compilation of these ages for every state for the years 1970 through 1981. Each NHANES I youth was assigned beverage-specific legal drinking ages in his or her state of residence for the one-year period ending on the date of the survey. If the state lowered its legal drinking age during this period, the legal drinking age was given as a weighted average of the two ages, where the weights are the fraction of months each age was in effect.[10] The three legal drinking-age variables are highly correlated and cannot be included in the same demand equation. Therefore, only the beverage-specific legal drinking age is used as a regressor in the demand functions for that beverage.[11]

Youths who reside in a state with a high legal drinking age may be able to purchase alcohol in a bordering state that has a lower legal drinking age. This is another example of the border phenomenon (out-of-state purchases of alcohol) that was discussed in the first section of this chapter in the context of cross-sectional price effects. To deal with this phenomenon, we created a dichotomous variable that equals 1 for youths who live within 20 miles of a state with a lower legal drinking age than the one in their state of residence (LADIFF).[12] With the own-state legal drinking age held constant, the coefficient of LADIFF in the demand functions should be positive.

We made no attempt to control for incentives to purchase alcohol in border areas with lower prices, since the prices are specific to cities rather than to states. In a large majority of cases, the relevant city-specific border prices are unknown. Moreover, excise taxes on beer, the beverage of choice of most youths, are very similar in contiguous states. Note that the NHANES I alcohol measures give actual consumption as opposed to the sales variable that is used in aggregate state cross-sectional studies. It follows that price effects are understated in absolute value if out-of-state purchases in lower-price areas are not taken into account. Consequently, the price coefficients presented in the third section of this paper are conservative lower-bound estimates of the true parameters.[13]

In addition to the independent variables listed in Table 2, all demand functions include as regressors age of the youth, race of the youth (a dichotomous variable that identifies blacks), sex of the youth (a dichotomous variable that identifies females), and family income. We do not present or discuss the effects of these variables on alcohol use in the third section. But it should be realized that all estimated price and legal drinking-age effects control for (hold constant) the effects of these variables. We use a relatively sparse set of independent variables because Arluck (1987) finds that the coefficients of interest in the demand functions are not sensitive to the inclusion of additional family background and characteristics of the youth. They also do not change much when state-specific measures of the availability and regulation of alcohol are added to the set of independent variables.[14]

Although youths are more likely to drink if their parents also drink (see the references cited in the first section of this paper), it is inappropriate to include parents' consumption of alcohol in the demand functions, since parental behavior is an endogenous rather than an exogenous variable in a more broadly defined model of drinking. That is, this behavior is determined *by* such a model rather than *outside* it. For instance, suppose that one is evaluating a policy to curtail youth drinking by raising the federal excise-tax rate on beer. An increase in the tax would raise the price of beer paid by youths and their parents, which would discourage consumption by both groups. Therefore, in evaluating the impact of such a policy, parents' beer consumption should not be held constant (included in the demand equation). In other words, an increase in the price of alcoholic beverages should discourage drinking by youths in two ways: (1) youth alcohol demand should be inversely related to price (direct price effect); and (2) parents' alcohol demand should be inversely related to price, which implies that the parents' "influence-by-example" effect will be inversely related to price (indirect price effect). Exactly the same comments apply to alcohol consumption by siblings and peers.

Estimation Techniques

Beer, liquor, or wine participation is a dichotomous variable. Therefore, dichotomous logit beverage-specific participation equations are estimated by the method of maximum likelihood. This technique assumes that the probability of, for example, beer participation *(p)* is given by the logistic function:

$$p = [1 + \exp(-\alpha - \sum_{i=1}^{n} \beta_i x_i)]^{-1} \qquad (1)$$

where x_i is one of n independent variables.[15] By solving for the logarithm of the odds of beer participation relative to no participation $[p/(1 - p)]$, the logistic function is transformed into a linear equation:

$$\ln[p/(1 - p)] = \alpha + \sum_{i} \beta_i x_i \qquad (2)$$

which is called the logit functions. The logit coefficient β_i shows the percentage change in the odds of beer participation for a one-unit change in x_i. The marginal effect of x_i on p (the change in the probability of participation due to a one-unit change in x_i) is given by

$$(\delta p/\delta x_i) = \beta_i p(1 - p) \qquad (3)$$

The beverage-specific frequency of drinking consists of five outcome categories (see part B of Table 1),[16] and the beverage-specific number of drinks consumed on a typical drinking day consists of four outcome categories (see part C of Table 1). Therefore, for these dependent variables, multinomial logit equations are fitted by the method of maximum likelihood. In the case of the number of drinks of beer consumed, let p_1, p_2, p_3, and p_4 be the probabilities of consuming six or more, three to five, one to two, and no drinks of beer, respectively. Then the probability of the ith outcome (p_i, $i = 1,2,3$) is[17]

$$p_i = p_4 \exp(\alpha_i + \sum_{j=1}^{n} \beta_{ij} x_j) \tag{4}$$

The logarithm of the odds of category i relative to category four is

$$\ln(p_i/p_4) = \alpha_i + \sum_{j} \beta_{ij} x_j \tag{5}$$

The logit coefficient β_{ij} now shows the percentage change in the odds of category i relative to no beer participation for a one-unit change in x_j. The marginal change of x_j on p_i (the change in the probability of category i or the outcome rate in category i) is[18]

$$(\delta p_i/\delta x_j) = p_i\beta_{ij} - p_i \sum_{i=1}^{3} p_i\beta_{ij} \tag{6}$$

Dichotomous and multinomial logit estimation methods are discussed in detail by Maddala (1983). Here it is important to emphasize several features of our estimates. Given the nature of the NHANES I questionnaire, beer participation, liquor participation, wine participation, and no alcohol participation are mutually exclusive outcomes. That is, liquor and wine participants as well as youths who did not drink in the previous year (or drank one to three drinks in that period) are treated as nonparticipants in the beer-participation equation. These same youths constitute the omitted category in the equations pertaining to beer frequency and the number of drinks of beer consumed on a typical drinking day. This raises the possibility that part of an observed inverse relation between beer participation, for example, and the price of beer may reflect increases in the number of youths who drink liquor and wine in response to a rise in the price of beer. The results reported in the third section of this chapter reveal, however, that these substitutions are unimportant.

We could have fitted a multinomial logit alcoholic-beverage preference equation with four outcomes: beer participation, liquor participation, wine participation, and no drinking. Conceptually, this equation should include all three legal drinking ages and all three prices as independent variables. Given the high degree of multicollinearity among these variables, we did not pursue the estimation of such an equation. Along the same lines, we rejected a ten-category multinomial logit equation for the number of drinks consumed on a typical drinking day and a twelve-category multinomial logit equation for drinking frequency.[19] Preliminary estimates of multinomial logit preference, frequency, and consumption equations with a limited set of regressors yielded results that are very similar to those contained in the third section of this paper.[20]

We did not model beer consumption, for instance, as a two-stage process in which youths first determine whether beer is their beverage of choice and then determine the frequency of beer consumption or the number of drinks per day given participation. In the two-stage model, nonbeer participants would be excluded from the equations for frequency or number of drinks. We did not use this model because it is appropriate only when the determinants of participation differ from those of frequency or number of drinks (McFadden, 1973). This condition is not satisfied in our research.

Since the equations for beer frequency and the number of drinks include figures representing nonbeer drinkers (the omitted category), they give estimates of the effect of a given independent variable on the probability of no beer participation (see note 18). The probability of beer participation is the complement of the probability of no participation; hence the multinomial logit equations and the dichotomous logit equations are alternative sources of participation effects. Strictly speaking, multinomial logit equations should be used to obtain these effects. The dichotomous logit model also is employed because so little is known about the effects of price on youth alcohol use. Given this, we believe that it is valuable to check the results obtained with a relatively sophisticated estimation method (multinomial logit) against those obtained with a relatively simple method (dichotomous logit).[21]

A MICRO DEMAND STUDY OF YOUTH ALCOHOL USE: RESULTS

Tables 3, 4, and 5 contain dichotomous logit estimates of beer, liquor, and wine participation equations, respectively. Logit coefficients and their asymptotic *t*-ratios are shown.[22] Four equations are presented in each table. The first limits the set of regressors to the beverage-specific or own price, the beverage-specific or own legal drinking age, and the four family and youth characteristics mentioned earlier in the subsection on the measurement of independent variables. The second adds the two substitute prices (the prices of liquor and wine in the case of beer) to this set. The third equation omits the substitute prices but includes the border legal-age variable. The fourth contains all relevant regressors.

In the beer-participation equations, the logit coefficients of the price of beer and the legal age for the purchase of beer are negative and statistically significant in all specifications.[23] The border legal age, or the legal-age-difference coefficient, has the appropriate positive sign, but it is not statistically significant. An increase in the price of liquor lowers the probability of beer participation, while an increase in the price of wine lowers beer participation. In all cases, however, these cross-price effects are insignificant.

Table 3. Maximum Likelihood Estimates of Dichotomous Logit Beer-Participation Equations[1]

Independent Variable[2]	*Equation Number*			
	(3-1)	*(3-2)*	*(3-3)*	*(3-4)*
PB	−1.563	−1.552	−1.570	−1.556
	(−2.08)	(−1.97)	(−2.09)	(−1.96)
PL	—	−0.080	—	−.077
	—	(−.33)	—	(−.30)
PW	—	.292	—	.288
	—	(.39)	—	(.37)
LAB	−.140	−.122	−.141	−.122
	(−2.24)	(−1.66)	(−2.24)	(−1.65)
LADIFF	—	—	.041	.011
	—	—	(.17)	(.04)
Chi-square	133.53	133.78	133.56	133.78
Sample size	790	790	790	790

Notes. [1]Logit coefficients and asymptotic *t* ratios in parentheses are shown. The critical asymptotic *t* ratios at the 5% level are 1.64 for a one-tailed test and 1.96 for a two-tailed test. The chi-square associated with each equation is significant at the 1% level. Each equation includes an intercept and the following additional independent variables: age of youth, race of youth, sex of youth, and family income.

[2]See Table 2 for definitions of PB, PL, PW, LAB, and LADIFF.

Table 4. Maximum Likelihood Estimates of Dichotomous Logit Liquor-Participation Equations[1]

Independent Variable[2]	*Equation Number*			
	(4-1)	*(4-2)*	*(4-3)*	*(4-4)*
PL	−.888	−.880	−.773	−.716
	(−2.91)	(−2.78)	(−2.44)	(−2.15)
PB	—	.026	—	−.314
	—	(.02)	—	(−.28)
PW	—	−.585	—	−.895
	—	(−.65)	—	(−.94)
LAL	−.034	−.060	−.048	−.110
	(−.37)	(−.53)	(−.52)	(−.93)

LADIFF	—	—	.540	.604
	—	—	(1.91)	(2.06)
Chi-square	56.73	51.15	60.21	61.22
Sample size	790	790	790	790

Notes: [1]See note 1, Table 3.
[2]See Table 2 for definitions of PL, PB, PW, LAL, and LADIFF

Table 5. Maximum Likelihood Estimates of Dichotomous Logit Wine-Participation Equations[1]

Independent Variable[2]	*Equation Number*			
	(5-1)	*(5-2)*	*(5-3)*	*(5-4)*
PW	.556	.966	.741	1.101
	(.59)	(.95)	(.79)	(1.10)
PB	—	−2.756	—	−2.530
	—	(−2.15)	—	(−1.96)
PL	—	.063	—	−.050
	—	(.20)	—	(−.14)
LAW	.027	−.082	.046	−.053
	(.26)	(−.71)	(.44)	(−.46)
LADIFF	—	—	−.548	−.504
	—	—	(−1.46)	(−1.29)
Chi-square	40.96	46.04	43.31	47.86
Sample size	790	790	790	790

Notes: [1]See note 1, Table 3.
[2]See Table 2 for definitions of PW, PB, PL, LAW, and LADIFF

In the liquor-participation functions, the own-price effect is always negative and significant. The legal-age effect also is negative, but it is never significant. In light of the preceding result, the positive and significant border-age coefficients in equations 3 and 4 are somewhat surprising. As in the beer-participation equations, the cross-price effects are insignificant.

The only significant coefficient in the wine-participation equation pertains to the price of beer. An increase in this price lowers the wine-participation rate. The coefficient of the price of wine always has the "wrong sign" (positive, as opposed to the negative effect that is anticipated a priori), while that of the legal age for the purchase of wine is positive when the substitute prices are omitted but negative when they are included. The border-age coefficient also has the wrong sign.

To summarize the results of the participation equations, the own-price effects are negative and statistically significant for beer and liquor, and the legal drinking-age effect is negative and significant for beer. It is notable that the two variables we emphasize in the demand functions—the own price and the legal drinking age—are important determinants of the probability of beer consumption, the drink of choice among youths who consume alcoholic beverages. It also is notable that cross-price effects are insignificant. This means that a reduction in the beer-participation rate in response to an increase in the price of beer is not accompanied by increases in the liquor- and wine-participation rates. Instead, this effect is due to a decline in the percentage of youths who drink no alcoholic beverages.[24] Finally, the magnitudes of the negative own-price effects are substantial. At the point of means, the elasticity of beer participation with respect to the price of beer ranges from − 1.53 in equations (3-2) and (3-4) to − 1.54 in equations (3-1) and (3-3).[25] The own-price elasticity of liquor participation is even larger than that of beer. It ranges from − 3.29 in equation (4-4) to − 4.08 in equation (4-1).

It is possible, although not very likely, that the large negative relationships between beverage-specific participation rates and prices just summarized reflect in part causality from the participation to price. Cook and Tauchen (1982) note that a state legislature's decision to raise or maintain the excise-tax rate on alcohol may be influenced by drinking trends in that state prior to the decision. Cook and Tauchen test for feedback from changes in alcohol consumption to excise-tax changes using Sims-Granger causality tests. They reject the hypothesis that the tax rate is endogenous. Even if the tax or the price is endogenous with respect to alcohol consumption at the state level, it is unlikely to be endogenous with respect to the consumption by or participation of specific youths in the state.

Tables 6 and 7 contain multinomial logit estimates of beer- and liquor-frequency equations, respectively. Tables 8 and 9 contain the corresponding equations for the number of drinks of beer or liquor consumed on a typical drinking day. Multinomial logit equations for wine are not shown because the own-price and legal-drinking-age effects are never significant

Table 6. Maximum Likelihood Estimates of Multinomial Logit Beer-Frequency Equations[1,2]

	Outcome Category			
Independent Variable[3]	*Every day*	*2–3 times per week*	*1–4 times per month*	*4–11 times per year*
PB	− 2.799	− .861	− 1.833	− 1.531
	(− 1.14)	(− .65)	(− 1.95)	(− 1.07)
LAB	− .270	− .192	− .100	− .151
	(− .46)	(− 1.69)	(− 1.30)	(− 1.32)
Chi-square	1,207.86			
Sample size	790			

Notes: [1]See note to Table 3.
[2]Omitted category pertains to no beer participation.
[3]See Table 2 for definitions of PB and LAB.

Table 7. Maximum Likelihood Estimates of Multinomial Logit Liquor-Frequency Equations[1,2]

Independent Variable[4]	*Outcome Category* *Every day*	 *2–3 times per week*	 *1–4 times per month*	 *4–11 times per year*
PL	—[3]	.564	−1.112	−.945
		(.63)	(−2.99)	(−1.70)
LAL	—[3]	.034	−.068	.028
		(.14)	(−.62)	(.17)
Chi-square	627.99			
Sample size	790			

Notes. [1] See note 1, Table 3.
[2] Omitted category pertains to no liquor participation.
[3] No youths in this category.
[4] See Table 2 for definitions of PL and LAL.

in the wine-participation models. These results do not change when the frequency of wine consumption or the number of drinks of wine is used as a dependent variable. Only one equation is presented in Tables 6, 7, 8, and 9. It limits the set of regressors to the own price of beer or liquor, the legal age for the purchase of beer or liquor, and the family and youth characteristics. This model is selected because the cross-price effects are insignificant in the participation functions, and the border legal-age effect is not significant in the beer-participation equation. The latter variable is significant in the liquor participation equation, but a model that includes it can be questioned in light of the insignificance of the own legal age for the purchase of liquor. In any event, none of the conclusions reached below would be changed if models with more regressors were employed.[26]

The main message of Tables 6, 7, 8, and 9 is that the negative-price and legal-drinking-age effects are *not* restricted to the least frequent drinkers (those who drink 4 to 11 times per year) or to the least heavy drinkers (those who consume 1 to 2 drinks on a typical drinking day).

Table 8. Maximum Likelihood Estimate of Multinomial Logit Equation for Number of Drinks of Beer on Typical Drinking Day[1,2]

Independent Variable[3]	*Outcome Category* *6 or more*	 *3–5*	 *1–2*
PB	−2.643	−1.611	−1.334
	(−1.65)	(−1.31)	(−1.51)
LAB	−.228	−.202	−.090
	(−1.80)	(−2.01)	(−1.22)
Chi-square	1,122.34		
Sample size	790		

Notes: [1] See note to Table 3.
[2] Omitted category pertains to no beer participation.
[3] See Table 2 for definitions of PB and LAB.

Table 9. Maximum Likelihood Estimate of Multinomial Logit Equation for Number of Drinks of Liquor on Typical Drinking Day[1,2]

Independent Variable[3]	*Outcome Category*		
	6 or more	*3–5*	*1–2*
PL	.651	−1.578	−.836
	(.63)	(−2.81)	(−2.26)
LAL	.261	−.070	−.047
	(.71)	(−.41)	(−.45)
Chi-square	594.88		
Sample size	790		

Notes: [1]See note 1, Table 3.
[2]Omitted category pertains to no liquor participation.
[3]See Table 2 for definitions of PL and LAL.

Instead, the logit coefficients of the price of beer and the legal age for the purchase of beer are negative for each of the four outcome categories in the beer-frequency equation (Table 6) and for each of the three outcome categories in the equation for the number of drinks of beer (Table 8). Moreover, all logit coefficients of the price of liquor in Tables 7 and 9 are negative except those pertaining to the outcome categories labeled "2–3 times per week" and "6 or more" drinks. These two categories are extremely small. They account for 1.4% and 1.1% of the sample, respectively.

The magnitudes of multinomial logit coefficients are difficult to interpret. For instance, consider the coefficient of the price of beer with respect to the outcome category "six or more" drinks in Table 8. According to that coefficient, a $1 increase in the price of beer lowers the probability of outcome "six or more" drinks of beer relative to the probability of the outcome "no drinks" of beer (the omitted category) by 2.6%. This does not necessarily mean that the probability of outcome category "six or more" drinks falls. Both probabilities at issue could rise as price rises, which would generate a negative logit coefficient if the percentage increase in the fraction of youths who drink six or more drinks is smaller than the percentage increase in those who do not drink beer at all.[27] Even if the percentage of youths in the highest category of beer consumption falls as price rises, the absolute or percentage-point reduction in this percentage may be smaller than the absolute reduction in the next highest category (those who consume three to five drinks). This is because the percentage of youths in the latter category exceeds the percentage in the former category (8.5% versus 5.1%). If each probability fell by the same number of percentage points, the logit coefficient associated with the highest consumption category would exceed that associated with the next highest category.

To gauge the magnitudes of the price and legal-drinking-age effects in the dichotomous and multinomial logit equations, logit coefficients can be converted into marginal effects based on equation (3) or equation (6). Since we are interested in comparing the magnitudes of these effects, we compute the impacts of approximately one-standard-deviation, as opposed to one-unit, increases in each of three variables: the legal drinking age, the price of beer, and the price of liquor. The results of these computations for drinking participation rates (probabilities), outcome rates (probabilities) of drinking frequency, and outcome rates (probabilities) of the number drinks consumed on a typical drinking day are shown in Tables 10, 11, and 12, respectively. The standard deviation of the legal drinking age is roughly one year. Therefore, the impacts of a one-year increase in this variable are given in these tables.[28] They can be interpreted as the predicted changes in youth alcohol use resulting from a rise in the legal drinking age from 20, the mean value in the NHANES I sample, to 21, the age in the Federal Uniform Minimum Drinking Age Act of 1984. The predicted impacts of a 10¢ increase in the price of beer (package of six 12-ounce cans) and a 30¢ increase in the price of liquor (fifth-size bottle of blended whiskey) also are given in the tables. Recall that a 30¢ increase in the price of liquor is the one contained in the Deficit Reduction Act of 1984.[29]

According to item 1 of Table 10, a 10¢ increase in the price of beer

Table 10. Changes in Drinking-Participation Rates Associated with Changes in Price and Legal Drinking Age[1]

	Beverage		
	Beer	*Liquor*	*Wine*
10¢ increase in price of beer			
1. Percentage-point (absolute) change in participation rate[2]	– 3.35	—[4]	—[4]
2. Percentage change in participation rate[3]	– 10.76	—[4]	—[4]
30¢ increase in price of liquor			
3. Percentage-point (absolute) change in participation rate[2]	—[4]	– 3.00	—[4]
4. Percentage change in participation rate[3]	—[4]	– 23.20	—[4]
One-year increase in beverage-specific legal drinking age			
5. Percentage-point (absolute) change in participation rate[2]	– 3.00	– .38	+ .28
6. Percentage change in participation rate[3]	– 9.63	– 2.94	+ 2.40

Notes: [1] Computations are based on equation (3-1) in Table 3, equation (4-1) in Table 4, and equation (5-1) in Table 5.

[2] Evaluated at mean participation rate.

[3] Percentage-point (absolute) change divided by mean participation rate and multiplied by 100.

[4] Set equal to zero.

Table 11. Changes in Outcome Rates (Probabilities) of Drinking Frequency Associated with Changes in Price and Legal Drinking Age

	Outcome Category				
	Every day	*2–3 times per week*	*1–4 times per month*	*4–11 times per year*	*Never*
			Beer		
10¢ increase in price of beer					
1. Percentage-point (absolute change in outcome rate[1]	−.46	−.24	−2.23	−.57	+3.50
2. Percentage change in outcome rate[2]	−23.00	−3.58	−13.27	−10.18	+5.08
One-year increase in legal age for purchase of beer					
3. Percentage-point (absolute) change in outcome rate[1]	−.50	−1.00	−.90	−.60	+3.00
4. Percentage change in outcome rate[2]	−25.00	−14.92	−5.36	−10.71	+4.36
			Liquor		
30¢ increase in price of liquor					
5. Percentage-point (absolute) change in outcome rate[1]	—[3]	+.27	−2.46	−.81	+3.00
6. Percentage change in outcome rate[2]	—[3]	+19.28	−30.00	−24.54	+3.44

Notes: [1] Evaluated at mean outcome rates (probabilities).

[2] Percentage-point (absolute) change divided by mean outcome rate at issue and multiplied by 100.

[3] No youths in this category.

lowers the beer-participation rate by almost 3.4 percentage points. This translates into a reduction in the number of youths who drink beer of 10.8 percent (item 2). Since cross-price effects are assumed to be zero and the overall drinking-participation rate (the sum of the beer, liquor, and wine participation rates) is 55.7%, the number of youths who drink an alcoholic beverage falls by 6.1%. Based on item 3, a 30¢ increase in the price of liquor lowers the liquor-participation rate by 3.0 percentage points, which is almost as large as the impact of a 10¢ rise in the price of beer. As shown in item 5, since beer, liquor, and wine participations are mutually exclusive outcomes, a one-year increase in each beverage-specific legal drinking age lowers the drinking participation rate by 3.1 percentage points, or by 5.6%. The bulk of this reduction is accounted for by the 3.0 percentage-point fall in the beer-participation rate. To summarize, the computations in Table 10 suggest that the three policies to curtail youth alcohol use under consideration have approximately *equal* impacts.

Table 12. Changes in Outcome Rates (Probabilities) of Number of Drinks on Typical Drinking Day Associated with Changes in Price and Legal Drinking Age

	Outcome Category			
	6 or more	*3–5*	*1–2*	*None*
	Beer			
10¢ increase in price of beer				
1. Percentage-point (absolute) change in outcome rate[1]	− 1.09	− .94	− 1.46	− 3.49
2. Percentage change in outcome rate[2]	− 21.37	− 11.06	− 8.30	+ 5.07
One-year increase in legal age for purchase of beer				
3. Percentage-point (absolute) change in outcome rate[1]	− 1.00	− 1.30	− .80	+ 3.10
4. Percentage change in outcome rate[2]	− 19.61	− 15.29	− 4.54	+ 4.50
	Liquor			
30¢ increase in price of liquor				
5. Percentage-point (absolute) change in outcome rate[1]	+ .24	− 1.44	− 1.83	+ 3.03
6. Percentage change in outcome rate[2]	+ 21.82	− 43.64	− 21.53	+ 3.48

Notes. [1] Evaluated at mean outcome rates (probabilities).

[2] Percentage-point (absolute) change divided by mean outcome rate at issue and multiplied by 100.

Turning to Tables 11 and 12, note first that the results in the extreme right-hand column of items 1, 3, and 5 in each table yields alternative estimates of participation effects. These estimates are very similar to those contained in Table 10 and highlight the robust nature of the multinomial specifications.[30] More important, the effects in Tables 11 and 12 have the same signs as the corresponding logit coefficients in Tables 6, 7, 8, and 9. This underscores the fact that the negative-price and legal-drinking-age effects are not limited to the least frequent drinkers or the least heavy drinkers. These striking results have clear implications for public policy, because frequent drinking and heavy drinking are states in which the antisocial effects of alcohol use, such as drunk driving, are likely to be most prevalent.

There is tentative evidence in Table 11 that frequent beer drinkers are more sensitive to legal-drinking-age changes than are infrequent beer drinkers, while the latter are more sensitive to price changes than are the former. We define a frequent beer drinker as a youth who consumes beer at least 2 to 3 times a week (8.7% of the sample) and an infrequent drinker as a youth who consumes beer 1 to 4 times a month or 4 to 11 times a year (22.4% of the sample). A one-year increase in the legal age for the purchase of beer lowers the percentage of youths who drink beer frequently by 1.5 percentage points (see item 3 of Table 11). This amounts to a 17.2% decline in the number of youths in this category. A 10¢ increase in the price of beer lowers the percentage of frequent beer drinkers by only .7 percentage points (see item 1 of Table 11), or by 8.2%. On the other hand, a one-year increase in the drinking age lowers the percentage of infrequent beer drinkers by 1.5 percentage points (6.7%), while a 10¢ increase in the price of beer lowers the percentage of such youths by 2.8 percentage points (12.5%).

The preceding comparisons are, however, much less striking when they are applied to the behavior of heavy beer drinkers. In Table 12 we define heavy beer drinkers as those who consume at least three to five drinks of beer during a typical drinking day (13.5% of all youths) and light beer drinkers as those who consume one to two drinks (17.6% of youths). A one-year rise in the legal drinking age lowers the percentage of heavy drinkers by 2.3 percentage points (see item 3), or 17.0%, while a 10¢ rise in price lowers the percentage of these youths by 2.0 percentage points (see item 1), or 14.8%. The corresponding reductions for light drinkers are .8 percentage points (4.5%) in the case of a drinking-age increase and 1.5 percentage points (8.3%) in the case of a price increase.

In evaluating the relative impacts of price and legal-drinking-age increases, it should be kept in mind that an increase in the legal drinking age for the purchase of liquor has virtually no impact on the frequency of liquor consumption or on the outcome categories pertaining to the number of drinks of liquor consumed on a typical drinking day. A 30¢ increase in the price of liquor, on the other hand, lowers the percentage of heavy liquor drinkers (4.4% of all youths) by 1.2 percentage points (see item 5 of Table 12). This amounts to a 27.3% decline in the number of youths who consume at least three to five drinks of liquor during a typical drinking day. Simultaneously, the percentage of youths who are light liquor drinkers (8.5% of all youths) falls by 1.8 percentage points (21.5%).

The percentage of frequent liquor drinkers actually rises as the price of liquor rises (see Table 11, item 5), but only 1.4% of all youths fall into this category. If the category representing frequent consumption of liquor is expanded to include youths who drink liquor at least one to four times a month (9.6% of all youths), a 30¢ increase in the price of liquor will lower the percentage of those youths by 2.2 percentage points (22.9%). At the same time, the probability of the outcome category representing infrequent liquor consumption (3.3% of the sample) will fall by .8 percentage points (24.5%).

To summarize, our results suggest that a 10¢ rise in the price of beer would cause the number of youths who drink beer to fall by approximately 11%. At the same time, the number of youths who drink beer as often as two to three times a week would fall by 8%, and the number of youths who consume as many as three to five drinks of beer on a typical drinking day would fall by 15%. A one-year increase from 20 to 21 in the legal age for the purchase of beer would cause a 10% drop in number of youths who drink beer, a 17% reduction in the number of youths who drink beer as often as two to three times a week, and a 17% reduction in the number of youths who consume as many as three to five cans of beer on a typical drinking day. A 30¢ increase in the price of liquor would cause the number of youths who drink liquor to fall by 23% and the number who have at least three to five drinks of liquor on a typical drinking day to fall by 27%.

Now compare a policy to raise the legal drinking age by one year with a policy to raise the price of beer by 10¢ *and* the price of liquor by 30¢. The former policy would cause the number of youths who drink alcohol (56% of all youths) to fall by roughly 6%. Simultaneously, the number who drink alcohol at least two to three times a week (12% of all youths) would fall by 12%, and the number who consume at least three to five drinks of alcohol on a typical drinking day (22% of all youths) would fall by 10%. The latter policy would cause the number of youths who drink alcohol to contract by 11%, the number who drink at least two to three times a week to shrink by 4%, and the number who have at least three to five drinks on a typical drinking day to contract by 15%. Except when frequent drinking is the outcome measure, the price policy is a more effective deterrent of youth alcohol use and abuse than the legal-drinking-age policy; our results indicate that it is at least as effective a deterrent as the legal-drinking-age policy.

A full cost-benefit analysis of the effects of a uniform drinking age of 21 or of increases in federal excise-tax rates on alcoholic beverages vis-à-vis youth alcohol use and abuse is beyond the scope of this paper (but see the chapter in Part III by Weinstein, "Costs and Benefits of Establishing a National Purchasing Age of 21"). Similarly, we cannot provide a definitive statement with regard to the relative merits of an antidrinking policy versus a policy of laissez-faire. But based on our results, we can highlight several policy-relevant facts and insights.

Alcohol use by youths aged 16 through 21 is inversely related to the price of alcohol. In many cases the magnitudes of the negative responses are substantial. Moreover, the negative price effects are not limited to light or infrequent drinkers. Instead, heavy drinkers and frequent drinkers, who undoubtedly are responsible for a large percentage of youth motor-vehicle accidents and deaths, also respond to price increases. It follows that, if reductions in youth alcohol abuse are desired, an increase in federal excise-tax rates on alcoholic beverages in real terms is a potent policy in accomplishing this goal. Moreover, the reduction in real alcoholic-beverage prices since 1960 and then 1976, the result of the stability of excise-tax rates, is inconsistent with the goals of discouraging alcohol abuse and reducing motor-vehicle accidents and deaths. Indeed, government policies actually may be making these problems worse.

The incidence of heavy drinking and frequent drinking by youths also would fall if the legal drinking age were raised to 21 in all states. According to our results, such a policy would have no larger an impact on youth alcohol use than one raising the price of beer by 10¢ in real terms and the price of liquor by 30¢ in real terms. But the enforcement of a uniform minimum drinking age of 21 involves substantial monetary and psychological costs. We refer to the resources that must be allocated to apprehending and convicting persons who violate the law and to the restrictions on personal freedom that it imposes. On the other hand, federal excise-tax increases are much less costly to administer and enforce. Therefore, a policy to curtail youth alcohol abuse by raising the real price of alcohol may have a very favorable cost-benefit ratio. It would be a mistake for policymakers to continue to ignore it.

ACKNOWLEDGMENTS

Research for this paper was supported by grant number 5 R01 AA05849 from the National Institute on Alcohol Abuse and Alcoholism to the National Bureau of Economic Research (NBER). We are indebted to Peter Yu and Emil Berendt for research assistance. This paper has not undergone the review accorded official NBER publications; in particular, it has not been submitted for approval by the Board of Directors.

NOTES

1. The research reported here is part of a larger project that also considers the effects of differences in alcohol prices over time and among states on youth motor-vehicle accident mortality rates. The results of this research are not yet available.

2. In these two studies the relative price of alcohol is defined as money price divided by average disposable income. This is a different definition from the one used by economists: money price divided by the consumer price index (CPI) of all commodities. Consequently, the results of the two studies should be interpreted with some caution. In particular, since the CPI rose less rapidly than average disposable income in Canada and the United Kingdom, Popham, Schmidt, and de Lint (1975) and Smith (1981) overstate the decline in relative price.

3. In monopoly (control) states, data concerning off-premises consumption of distilled

spirits and wine are derived from records of sales by state-owned stores. The point being made here still is relevant because most or all of the revenue monopoly states realize from the sale of distilled spirits and wine has its source in the state markup of price. Note that beer is sold privately in monopoly states.

4. By using the death rate attributable to cirrhosis of the liver as a measure of excessive alcohol consumption. Cook and Tauchen (1982) avoid certain aspects of the border phenomenon. Their consumption variable does not reflect out-of-state purchases, although their estimated price effect may understate in absolute value the true price effect. For more details on this point, see the second section of this chapter.

5. NHANES I is described in detail in a publication by the National Center for Health Statistics (NCHS) (1973, 1977). This is a national sample of the civilian, noninstitutionalized population of the United States, with some oversampling of low-income persons, preschool children, women of childbearing age, and the elderly. The survey was conducted by the NCHS between May 1971 and June 1974; data were collected from approximately 18,000 persons between the ages of 1 and 74 years. These persons were selected from 65 primary sampling units, each of which consists of one or more counties. Each person in the survey was given a detailed physical examination. A variety of information on medical and health histories, family socioeconomic characteristics, and diet patterns also was obtained. Data on alcohol use for the one-year period preceding the date of the examination were collected for persons ages 12 through 74.

6. Ornstein and Hanssens (1983) obtained the transactions price of a leading brand of beer (the specific brand name is confidential) in two large metropolitan areas in each state of the United States for the period 1976 through 1979. They employed this price variable in pooled time-series cross-sectional estimates of aggregate beer-demand functions. They have kindly made this variable available to us for use in our research with cycle II of the U.S. Health and Nutrition Examination Survey, which was conducted between February 1976 and February 1980. The results of this research are not yet available.

7. Since the alcohol-consumption data pertain to a one-year period prior to the date of the examination, legal drinking ages in multiple-state/multiple-county sites were checked during this entire period. Three additional multiple-state/multiple-county sites were retained because the states at issue had the same legal drinking ages. Only one of the six multiple-state/multiple-county sites contains residents from three states. This site comprises the District of Columbia and surrounding counties in Maryland and Virginia. The five remaining sites contain residents from adjacent counties in two states.

8. Of the variables employed in the demand functions, the only ones with missing values are alcohol use and family income. In each case the number of observations with missing values is very small.

9. Suppose that variations in state excise taxes on beer are the only source of cross-sectional differences in beer prices. Let the price of beer in the jth state in year t inclusive of tax (z_{jt}) be given by

$$z_{jt} = w_t + r_{jt}$$

where w_t is the price exclusive of tax and r_{jt} is the state excise-tax rate on beer. If r_{jt} remains constant over time, the percentage rate of change in z_{jt} is

$$\dot{z}_{jt} = (1 - s_{jt})\,\dot{w}_t$$

In the second equation, a dot over a variable denotes a percentage time derivative and $s_{jt} \equiv (r_{jt}/z_{jt})$. Clearly, $\dot{z}_{jt}$ falls as s_{jt} rises.

10. For example, consider a youth examined on January 1, 1973. On October 1, 1972,

his state of residence lowered its legal age for the purchase of beer from 21 to 18. He is assigned a legal drinking age for beer of

$$(9/12)(21.00) + (3/12)(18.00) = 20.25$$

This procedure was employed by Cook and Tauchen (1984) in their study of the effects of minimum drinking ages on youth motor-vehicle accident mortality. Since our drinking ages are beverage-specific, they take into account reductions in one or two but not all three ages in several states during the period of the NHANES I survey.

11. The legal age for the purchase of beer is never higher than that for the purchase of wine or liquor. Similarly, the wine legal drinking age is never higher than the liquor legal drinking age. Two dichotomous variables were created that identify youths who reside in states where the legal drinking age is lower for beer than for wine or distilled spirits and youths in states where the legal drinking age is lower for wine than for distilled spirits. Preliminary estimates revealed that these two variables were unimportant determinants of alcohol consumption and that their inclusion had little impact on the coefficients of the other variables. Hence they were dropped from the final set of equations. This finding is consistent with the result, described in the third section of this paper, that substitution among beverages by youths is unimportant. That is, cross-price effects are insignificant. The finding also can be traced (1) to a high correlation between the beer legal drinking age and the dichotomous variable for cases in which this age is lower than for other alcoholic beverages and (2) to a very small percentage of cases in which the liquor legal drinking age exceeds the wine legal drinking age.

12. This variable was computed separately for beer, liquor, and wine but assumed the same value for each beverage.

13. Suppose that the demand function for beer is specified as

$$y = \alpha_0 + \alpha_2 zd + \alpha_3 x$$

Here y is a measure of beer consumption, z is the own price of beer (the price in a youth's area of residence), zd is the difference between the own price and the border-area price if this difference is positive and is zero otherwise, and x represents a vector of additional independent variables. With the own-area price held constant, an increase in the price differential reflects a reduction in the border-area price and should cause beer consumption to increase ($\alpha_2 > 0$). If the equation is fit with zd omitted, the parameter estimate of the absolute value of α_1 is biased downward, since z and zd are bound to be positively correlated. For a detailed development of this specification of the border phenomenon, see Lewit, Coate, and Grossman (1981).

14. These measures include the per capita number of establishments that are licensed to sell alcoholic beverages, a dichotomous variable that indicates whether off-premises alcoholic-beverage stores are state owned and operated, a dichotomous variable that indicates whether drug and grocery stores can sell alcoholic beverages, and a dichotomous variable that indicates whether billboard advertising of alcoholic beverages is allowed. All of these measures pertain to the state in which a given youth resides. Arluck's results are based on ordinary least-squares regressions. It is beneficial for us to limit the set of independent variables because the estimation techniques that we employ (see the fourth subsection of the third section of this chapter) are computer intensive.

15. The variable p denotes the probability that a given youth drinks beer. The subscript that identifies the youth in question is suppressed.

16. There are only four categories for liquor frequency, because no youths in the sample drank liquor every day.

17. Since

$$\sum_{i=1}^{4} p_i = 1,$$

$$p_4 = [1 + \sum_{i=1}^{3} \exp(\alpha_i - \sum_{j=1}^{n} \beta_{ij} x_j)]^{-1}$$

18. Since

$$\sum_{i=1}^{4} p_i = 1,$$

$$(\delta p_4/\delta x_j) = - \sum_{i=1}^{3} (\delta p_i/\delta x_j)$$

19. In the former equation the categories are no drinking, 6 or more, 3 to 5, and 1 to 2 drinks of *each* beverage. In the latter equation the categories are consumption of *each* beverage every day, 2 to 3 times a week, 1 to 4 times a month, 4 to 11 times a year, and no drinking. There are twelve categories rather than thirteen because no youths drank liquor every day.

20. The measures of drinking frequency and the number of drinks consumed are ordered categorical variables, but we do not use the ordered logit estimator (for example, see Maddala 1983). The reason is that estimator does not allow for nonlinear and possibly nonmonotonic effects of the independent variables on the outcomes at issue.

21. An additional estimation problem arises because NHANES I is a stratified cluster sample rather than a simple random sample. Consider an ordinary least-squares regression in this context. If the regression is fit under the assumption of simple random sampling, regression coefficients are unbiased, but their *t* ratios are overstated (Shah, Holt, & Folsom, 1977). A computer program called SURREGR, described by Holt (1977), estimates unbiased *t* ratios for ordinary least-squares regressions—*t* ratios that account for sample design effects. There is, however, no SURREGR equivalent of a logit model. This suggests that the asymptotic *t* ratios (the ratios of logit coefficients to their standard errors) shown in the third section of this chapter may be biased upward. There is, however, a factor that goes in the opposite direction. We employ a relatively sparse set of regressors; standard errors would fall if this set were expanded. Recall that Arluck (1987) found that the coefficients of interest in the demand functions are not sensitive to the inclusion of additional independent variables.

22. The ratios of logit coefficients to their standard errors do not have Student's *t* distribution. These ratios do, however, have an asymptotic normal distribution. Therefore, the *t* test is an asymptotic one.

23. Statements concerning statistical significance in the text are based on one-tailed tests except when the direction of the effect is unclear on a priori grounds or when the estimated effect has the "wrong sign." In the latter cases, two-tailed tests are used. In particular, the own price and legal-drinking-age effects are expected to be negative, and the border legal-age effects are expected to be positive. The a priori signs of the cross-price effects (the signs of the logit coefficients of the prices of liquor and wine, for example, in the beer-demand functions) are ambiguous a priori. These signs depend on whether beer and liquor or beer and wine are substitutes or complements.

24. Ornstein (1980) summarizes a number of studies that find little or no substitution among alcoholic beverages. Note that the simple correlation coefficients between the prices of beer and liquor (r = .16) and between the prices of beer and wine (r = .22) are positive but not substantial. The simple correlation coefficient between the prices of liquor and wine is practically zero (r = −.02). Thus it is unlikely that our results are artifacts of multicollinearity among the prices.

25. If p is the beer participation rate, z is the price of beer, and β is the logit coefficient of z, the own price elasticity (ϵ) is given by

$$\epsilon = \beta(1 - p)z$$

We evaluate ϵ at the sample means of p and z.

26. In Tables 10, 11, and 12, the size of the price effect is compared to the size of the legal-drinking-age effect. These comparisons ignore the fact that the coefficients of the legal age for the purchase of liquor rise in absolute value when the border-age variable is held constant. But they also ignore the negative effects of the price of liquor in the beer-demand functions.

27. In fact, since the logit coefficient in question exceeds the other two price coefficients in Table 8 in absolute value, the marginal effect of price on the probability of heavy beer consumption must be negative. The situation described in the text could arise if the coefficient of price on the probability of consuming six or more drinks were not the largest of the three price coefficients.

28. In Table 10, the impact of a one-year increase in each of the three legal drinking ages is shown. In Tables 11 and 12, the computations are limited to a one-year increase in the legal age for the purchase of beer.

29. The legal-drinking-age effects in Tables 10, 11, and 12 coincide with marginal effects multiplied by 100 to express them as percentage-point changes. The beer price effects are marginal effects multiplied by .1 (and then multiplied by 100 to express them as percentage-point changes). The liquor price effects are marginal effects multiplied by .3 (and then multiplied by 100). Note that a $1 increase in the price of beer lies outside the sample range and that a $1 increase in the price of liquor is almost three times as large as the standard deviation of the price of liquor. Consequently, it is very misleading to apply the logit coefficients to price increases of $1. Note also that the results in Tables 10, 11, and 12 are subject to the qualification that they are based in part on mean values in the NHANES I sample.

30. For example, from item 1 of Table 11, a 10¢ increase in the price of beer raises the percentage of youths who never drink beer by 3.5 percentage points or lowers the beer participation rate by 3.5 percentage points. The corresponding reductions in Tables 10 and 11 are 3.5 percentage points and 3.4 percentage points, respectively.

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DRIVING WHILE INTOXICATED

Senator D'AMATO. Thank you very much, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, Senator D'Amato. You brought up an important question. I am curious, Dr. Novello, if we have any idea how many of the drunk driving or alcohol-related fatal crashes involve those who are addicts or alcoholics, and how many of those involve the social drinker who just took a couple of drinks along the way. Do we know?

Dr. NOVELLO. I tend to believe that it has much more to do with the social drinker, because I also found that kids do not realize that it takes a 150-pound man 2 hours to metabolize one can of beer. And if the kids tell me, "I can't drink just one, I take another one and another one because I do not want to look like a nerd," they absolutely do not realize the concentration of alcohol in their systems.

So I would say that it has a lot more to do with social behavior and peer pressure—an attitude of, "there are no consequences" rather than just someone who is truly addicted to the drink.

Senator LAUTENBERG. It seems to me that this is the way it is. I often tell the story about a trip I took out West. I went to a rodeo with a little time on my hands. And I was surprised to see the number of young people buying beer at a road stand, or a bar-on-wheels. And there was a policeman there whom I asked, "Do you know what the minimum drinking age is in this country?" He responded, "Yes, it is 21." So I said, "Well, do you think these kids are 21?" He said, "No." So I asked, "Well, what do we do about it?" He simply said, "I do traffic, Mister."

It is very interesting, you know. It is a social adjustment that is very hard to get through to young people. And I see it personally.

When I tell a group of youngsters that I am the author of the no smoking law in airplanes, I get applause. When I tell them that I am also the author of the 21 minimum drinking age law, I get some boos. Not b-o-o-z-e, b-o-o-s.

But it is quite something. Here, they know the danger of smoking, but the young people do not understand the danger of drinking and driving.

A very dear friend of mine—everybody has experiences, many of whom I have met personally—this friend of mine had a 14-year-old son who got into a car with another young man who took his father's high-speed Porsche, and at 90 miles an hour they hit a pole. And my friend's son was incinerated.

The driver escaped, but there were beer cans in the car and the driver had a blood alcohol content above that which is safe. It is so painful to see.

Dr. Novello, what do you think is the single most important act a State can take to minimize drunk driving by underage people?

Dr. NOVELLO. I think the most commonsense answer is—enforce the law. You would be surprised how few people know the law of their States. But I think, of the alternatives we have heard, it has been the automatic revocation of the driver's license, that hurts the most.

Senator LAUTENBERG. Do we have data supporting that contention?

Dr. NOVELLO. When we did the inspector general's report, almost every local law enforcement official told us that the driver's license was what the kids care about—and that the second most effective thing was community service. But it was not as effective when the service was done by the kid himself. It had more of an effect when it was done by both the father and the kid.

Senator LAUTENBERG. That is interesting. Is there enough value in license revocation, that of and by itself it can make a difference? Or must it, to be effective at all, be combined with other State programs against alcoholism?

Dr. NOVELLO. I have the feeling that things might not be equal for all States. And revocation might not be something that all States might like to have. But we should make sure that, when the kids do something that is putting their life at risk and the life of others, their licenses should be revoked or at least they should be fined substantially.

And then we must ensure that the parents accompany the kids to court, and that they receive alcohol education together. We are already doing that for the vendors. Why should we not do it for the family?

I would also like to add—if we are going to revoke the license of a kid, then we must be serious in revoking the license of a vendor who sells to that kid. Otherwise, we are not respecting the rights of the children, by punishing only one of the guilty parties here.

Senator LAUTENBERG. So the loss of license is, to use the language of the young people, a relatively awesome prospect?

Dr. NOVELLO. Yes; let me add that, in the inspector general report, we were surprised to find that the kids would be fined more than the vendor who sold them in some States.

If that is the case, if I revoke a kid's license, then I must revoke that of the person who sold it to him, too.

"NORMAL" DRINKERS

Senator LAUTENBERG. A very interesting observation. What do you think about having a Federal mandate which requires that a license be revoked for an underage drunk driver? Do you think that is a good idea?

Dr. NOVELLO. I think that if a kid is underage, and he is picked up driving and he has a driving permit, then what would happen should be decided by the States.

However, I tend to believe that we cannot enforce these laws unless we show the country what the true problem is and how big it really is. And, as much as I would like to see more research on the kids, I think we are going to need more research to show what happens to so-called normal drinkers in this country.

I will give you an example. At the University of California, San Diego, there was a study which I can submit for the record, that followed normal drinkers for 20 years—people who never thought that they had a drinking problem. They found that these drinkers still, after being followed, resolved conflicts by conflict, were absent from work, and laughed at the fact that they had been drinking and driving, but had never been caught.

So these are normal drinkers, normal people followed for 20 years—and the ravages of alcohol to their lives are clear. We must alert people to what drinking does to the so-called normal drinker. And then we must get them to imagine what the consequences are when you are binge drinking while your body is still growing.

But when and if these laws are enacted, let's make sure that we impose punishments equally, on the family, on the vendor, and on the kid. Let's not just punish the kid.

[The information follows:]

LETTER FROM DR. MARC A. SCHUCKIT

MARCH 4, 1991.

Dr. ANTONIA NOVELLO,
Surgeon General of the United States, Office of the Surgeon General,
Public Health Service, Washington, DC.

DEAR DR. NOVELLO: It was a great pleasure to get to speak with you briefly in San Diego this last Saturday. In fact, it was a most enjoyable and very worthwhile way to spend a Saturday afternoon. (Really!)

During our discussion, you asked some questions regarding alcohol as part of your preparation for a speech that you will be giving this week. Hopefully, the following comments focus in on some of the issues that we discussed. I am trying to keep these notes brief and to the point, but will be following up with a group of references so that you will have the opportunity of reading about some of these topics in more depth.

As I remember it, our discussion fell into a series of general areas:

I. THE OVERALL EFFECTS OF ALCOHOL

While there are some interesting differences between the different types of alcoholic beverages (mostly a reflection of the congeners that give each type of beverage its distinct taste), most of what we understand to be the effects of alcohol almost certainly do not differ between the beverage types. Most of us consider a standard drink to be approximately 10 grams of absolute alcohol which is about the amount found in 12 oz. of U.S. beers, 4 oz. of nonfortified wine, and between 1 oz. and 1½ oz. of 80-proof beverage. Therefore, there is no "safety" in being a beer vs. wine vs. hard liquor drinker—a 6-pack of beer and 6 highballs both represent approximately the same amount of alcohol; and that is an awful lot.

II. THE "BENEFITS" AND DANGERS OF ALCOHOL

There is little argument that there are some groups of people for whom any alcohol represents a significant danger. These represent recovering alcoholics and drug abusers as there are adequate data to demonstrate that even low doses of alcoholic beverages are likely to lead to an escalation of drinking and problems In the future (Helzer J. et al. New England Journal of Medicine 312:1678–1682, 1985). There are also plenty of data demonstrating that even low doses of alcohol taken occasionally are likely to impair optimal fetal development, even at doses far short of what is required for a full-blown fetal alcohol syndrome (Streissguth A. et al. Neurobehavioral Toxicology and Teratology 8:717–725, 1986). Of course, there are people with a variety of medical disorders and those taking a variety of medications for whom even low doses of alcohol can be dangerous.

On the other hand, once these exclusions are observed, it is difficult to document that a maximum of one or two drinks a day significantly interferes with health. There are even data showing that small amounts of alcohol are likely to increase high density lipoprotein cholesterol (even though it increases the HDLC fraction least closely associated with a protection from heart disease), with a resulting *possible* decrease in the cardiac death rate (Shaper A. British Journal of Addiction 85:837–847, 1990). The overall death rate is not decreased (perhaps related to an increased risk for some forms of cancer such as those of the breast), but the beneficial effects of alcohol on blood fats *might* be of some use to people with predisposition toward heart disease (Criqui M. Alcoholism: Clinical and Experimental Research 10:546–569, 1986; Schatzkin A. et al. New England Journal of Medicine 316:1169–1173, 1987).

The fact that low doses of a substance such as alcohol (or aspirin, or antibiotics, or vitamin A) might not be harmful to you under certain circumstances, never implies that higher doses of these substances are safe. There are many reasons to conclude that the more over 2 drinks per day one consumes the greater the risk for accidents, high blood pressure, severe mood swings, cancers, and so on. Regarding the latter, there is a very close association between many forms of cancer and heavy alcohol intake, with, for example, evidence that 70 percent of people with cancers of the head and neck above the epiglottis fulfill criteria for alcoholism (this material is reviewed in Chapter 3 of my book entitled Drug and Alcohol Abuse: A Clinical Guide to Diagnosis and Treatment [3rd edition], New York. Plenum Publishing Company, 1989).

Alcohol, in any of its forms, is also likely to be associated with severe mood swings. In the experiments that we have carried out in San Diego over the last fifteen years, we can show temporary and relatively mild levels of irritability and sadness several hours after 3 to 5 drinks in healthy young men. Similarity, mild mood swings have been observed the morning after modest drinking in a group of women (Birnbaum I. Alcoholism: Clinical and Experimental Research 7:362–368, 1983) also severe depressions, often associated with suicide attempts, are likely to be observed in the context of heavy drinking and remain for several weeks after abstinence in perhaps one-third to one-half of alcoholics (Brown S. et al. Journal of Studies on Alcohol 49:412–417, 1988; Schuckit M. American Journal of Psychiatry 140:711–714, 1983). It is not surprising that the lifetime risk for actual death by suicide among alcoholics could be as high as 10 percent.

Heavy intake of alcohol is also associated with severe symptoms of anxiety, often to the point of Interfering with life functioning. These probably reflect withdrawal symptoms that are most intense for several weeks and then tend to get better over time. There are plenty of data to indicate that these relate to the direct effects of alcohol (Schuckit M. Journal of Studies on Alcohol 51:34–41, 1990; Brown et al. Journal of Studies on Alcohol 52:55–61, 1991).

Finally, as part of this brief review, alcohol manufacturers would love us to believe that the bad effects of alcohol on many body systems are the result of trauma, nutrition, and the congeners in the other guy's booze. However, this rarely (if ever) turns out to be the case. For example, Charles Lieber in New York has demonstrated that baboons fed modest-to-high doses of alcohol for many months (probably somewhere between 1 and 2 years) begin to develop changes in their livers that closely correlate with what is called cirrhosis. This appears to be totally unrelated to diet and nutrition, and is almost certainly unrelated to the form of alcohol taken (Lieber C. Hepatology 4:1243–1260, 1984). In humans, these changes probably occur at 4 to 6 or more drinks per day.

III. ALCOHOL-RELATED PROBLEMS, AND ALCOHOLISM

From a public health standpoint, the information that I reviewed above demonstrates that any intake of alcohol is potentially problematic for some people (e.g., recovering alcoholics, pregnant women, and so on). It can also be seen that intake of more than 2 drinks per day correlates with an ever increasing risk for many health problems. These include behavioral difficulties. For example, our data on a 10-year follow-up of 166 healthy young men tested twice at age 20 and at 30 showed that about 70 percent of them had at least one incident in their lives where alcohol interfered, including an isolated alcoholic blackout, missing some time from school or work because of drinking or being hung over, and so on. Looking at these data item by item, between 30 percent and 40 percent of these young men (most of whom never went on to develop severe enough problems to be called alcoholic) admitted to driving while intoxicated on at least 2 or more occasions during the 10 years, although few of these men were arrested for drunk driving. The important point here is that occasional heavy drinking is often a temporary phenomenon that people tend to "grow out of," but one that is costing this country billions of dollars yearly in accidents, impaired performance at work, and so on.

Most of this morbidity and mortality is not alcoholism. The peak age of occurrence of these problems is probably 18 to 25 years and it is highly likely that the beverage of choice is beer. Alcoholism, usually defined as severe repetitive problems related to drinking, is observed at some time during their lives in at least 10 percent to 15 percent of men and perhaps 5 percent or more of women. Contrary to what some would have us believe, the average alcoholic in this country is blue-collar or white-collar, has some interpersonal relationships and job strengths, and is consuming beer.

Finally in this topic area, all of the information that I have related here is appropriate for teenagers and young adults. This period of life is the time at which an individual is most likely to be an active drinker (perhaps 80 percent to 90 percent by the end of high school have been drinking in the prior year), and this age range is also the time of the greatest prevalence of temporary alcohol-related life problems. While it does appear as if during the 1980's the proportion of drinkers and the subgroup involved in the heaviest alcohol intake has stopped increasing and might even have decreased a bit, drinking-related problems remain among the top causes of morbidity and mortality in this age group.

You asked many excellent and important questions and I have tried to focus on the topics of greatest interest to you. I hope this helps and am looking forward to sending on a "care package" of relevant articles as well as a copy of the most recent edition of my book. Please do not hesitate to call or write If I can be of any further help.

Good luck with your lecture.

With best personal regards,

MARC A. SCHUCKIT, M.D.,
Professor of Psychiatry, UCSD School of Medicine,
Director, Alcohol Research Center, San Diego Veterans Affairs Medical Center.

VALUE IN THREATENING REVOCATION OF LICENSE

Senator LAUTENBERG. So my interpretation of what you are saying is that there is some significant value to threatening the revocation of a license to a young individual. But it can be made even more effective.

I agree with you, as I have listened to your recommendations, that even without expanding the punishment on vendors, the loss of license is a significant deterrent.

Dr. NOVELLO. Yes.

FEDERAL INVOLVEMENT

Senator LAUTENBERG. The loss of license of and by itself.

And your report card, the one that you released, not the one you have. The one you have is excellent. The one you released is not as good. You give grades to the Nation's effort to address the many problems related to underage drinking and, you also assign grades to the responsible parties, the liquor industry, and State and local governments.

You give the Nation as a whole a C+ for reducing minors' access to alcohol. You also give a C+ to the States and localities for this effort.

Yet, at the same time, you do not assign a grade to the Federal Government, saying that it does not apply to the Federal Government. Don't you think the Federal Government also has a significant responsibility so that it, too, ought to be graded, based on its performance and effort?

Dr. NOVELLO. No; one thing that I have found, working in this area, very closely for 3 years, is that the Federal Government wants to do good. But somewhere along the way, the laws that have been written in this country to regulate alcohol are post-prohibition and no one has looked at them very closely from the perspective of the 1993 consumer.

And we have seen products like Crazy Horse and Black Death vodka survive, with courts ruling that these products are not false, misleading, obscene, or indecent. But we all should ask, obscene or indecent to whom.

If the law would specify to whom, then we would not have a product that forces the Surgeon General to be the policewoman of the year—looking into the industry, and everybody would be protected.

So in that sense, I would say that the Bureau of Alcohol, Tobacco and Firearms and the Federal Trade Commission, have worked with me very closely, and equally so, the National Institute of Alcohol and Drug Abuse. However, the Federal Government's hands are tied because the law reads one way and the industry knows it.

So look into this law and I assure you that the American public will be thankful that the Government could finally do its job. Look into the law. That would be the best legacy the Surgeon General could have—that you took this admonition seriously and you looked at it very conscientiously.

BLOOD ALCOHOL CONTENT OF UNDERAGE DRINKERS

Senator LAUTENBERG. One of the recommendations you make, along with the recommendations of the NTSB, is to lower substantially the legal blood alcohol content for underage people.

My State, New Jersey, has lowered the legal BAC limit for underage people to .01. Senator Domenici, who is with us, had an active interest here. And we will call on him in just a minute.

What successes, can you tell us, have been achieved by the 14 States that have lowered the BAC for underage youth. And what success have they had in reducing the fatalities that involve underage youth and drinking?

Dr. NOVELLO. I think that any time we lower the blood alcohol content [BAC], it really allows us to ensure that kids do not have such high BAC's. And this ensures that there are less crashes and less complications.

That has been good. What I have always heard the kids telling me is, if you go for .000 BAC, then you ignore the fact that people are selling booze to me even though I am not 21.

One of the studies by Peter Hart & Associates showed something very interesting, and I would like to submit it for the record. The parents do not really understand what the kids are doing. And as long as they do not understand, they'll continue to think it's OK to buy alcohol for kids. How about that report that found that about 42 percent of people buy for the underage for fun?

We put 16- to 20-year-olds here and parents of 16- to 20-year-olds there and ask, What is the biggest problem in your neighborhood and your school? The kids say alcohol. The parents say drugs. Neither the parents nor the kids see alcohol as a drug.

So as long as the parents are not recognizing the problem, how can we expect communities to control this problem? So .01 BAC is very good.

But I want to tell you one thing, Senator. The biggest illegal underage drinker problem that I had at the beginning of my term, was with Cisco, the fortified wine that looked like a wine cooler. It had the equivalent of five shots of vodka. And, I discovered that hospitals do not routinely test blood alcohol content unless there is an accident involving deaths.

What I learned is that we must do more BAC's—more routinely—especially on the kids and on anyone who is in danger of having an accident.

If you document, you will find. If you find, you will be able to act.

[The information follows:]

DOUBLE VISION: PARENTS, TEENS, AND ALCOHOL

KEY FINDINGS FROM A NATIONWIDE SURVEY OF YOUTH AGE 16 TO 20 AND PARENTS OF YOUTH AGE 16 TO 20

Between June 16 and 22, 1992, Peter D. Hart Research Associates conducted a nationwide telephone survey of 529 youth age 16 to 20 and 536 parents of youth in that age group.[1] The purpose of the study was to measure and compare the attitudes, perceptions, and reported behavior of young Americans and their parents on the issue of underage drinking in general and drinking and driving in particular. This report presents the highlights from the survey.

A Generational Perception Gap

This survey's single most striking finding is that America's parents are undeniably out of touch on the issue of underage drinking. While parents appear to be clued in to what is happening among today's teenagers and young adults when it comes to sex, drugs, and problems in the schools such as violence and drop-outs, they seriously underestimate the extent to which their children are using alcohol.

Both the youth who are currently students (82% of the total youth sample) and the parents whose child is a student (85% of the total parents sample) were asked to describe whether each of six problems is extremely widespread, very widespread, not a common problem, or not really a problem at all among the students in their or their child's school. The responses show that parents seem to have a fairly good idea of what is going on in their teenagers' lives in general, but in one major area--heavy or excessive drinking--parents' perceptions are way off base.

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[1] The samples for youth and parents were based on a list of qualified households (those in which at least one child age 16 to 20 resides) with listed telephone numbers. Please note that, to the degree possible, key subgroups in the samples of youth and parents (race and ethnic background, for example) were weighted to represent accurately their true proportion of the age population in question, but that these samples as a whole tend to be more upscale than is the actual relevant population. Persons with unlisted telephone numbers were not represented, and those at the lower end of the socioeconomic scale--especially those in their late teens and early twenties--tend to be unavailable to participate in telephone surveys.

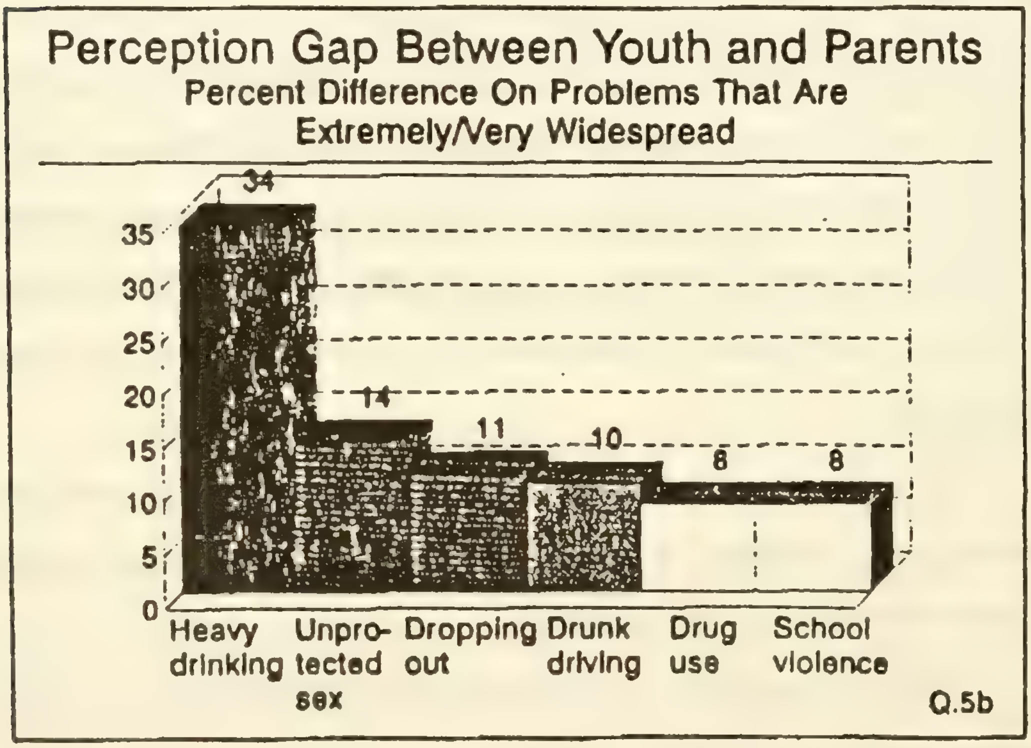
Students themselves tell a much different story; indeed, they see heavy drinking as the most significant of all the problems tested. There is a rift of 34 points, in fact, between the four in five students (79%) and the 45% of parents of a student who see heavy drinking as an extremely or very widespread problem in the schools today.

On the other problems facing today's students, parents' assessments vary from those of youth by only about 10 points. For example, there is an eight-point gap on the prevalence of drug use (54% of students and 46% of parents of a student say this is an extremely or very widespread problem) and school violence (28% of students, 20% of parents of a student); a 10-point difference on the problem of drunk driving (recognized as widespread by a 52% majority of students and by 42% of parents); a disparity of 11 points on school drop-outs (33% versus 22%); and a slightly larger 14-point divide on the incidence of unprotected sex (60% to 46%).

These relatively minimal differences make the yawning gap in perceptions between young Americans and their parents on the pervasiveness of heavy or excessive drinking all the more dramatic.

The following table displays the percentages of youth and of parents who say each problem is extremely or very widespread among their or their child's fellow students. It is followed by a graphic to demonstrate the varying gap in perceptions between the older and younger generations.

	Youth Who Are Students %	Parents Whose Child Is A Student %	GAP ±%
Drinking heavily or excessively	79	45	+34
Having unprotected sex	60	46	+14
Dropping out of school	33	22	+11
Drunk driving	52	42	+10
Drug use	54	46	+8
Violence in school	28	20	+8



Perception Gap Between Youth and Parents
Percent Difference On Problems That Are Extremely/Very Widespread

Parents draw only the smallest of distinctions among the prevalence of teenage drug use, drunk driving, unprotected sex, and excessive drinking, with the percentage who believe each is a widespread problem ranging from 42% to 46%. Students' own assessments of these four problems span from 52% to 79%.

Moreover, while excessive drinking is recognized by the vast majority of youth as the most widespread of all the problems tested, the young people who have an inside track on this issue are even more inclined to view it as a pervasive problem: 88% of youth who describe themselves as moderate or heavy drinkers and 85% of youth who report drinking twice a month or more say heavy drinking is extremely or very widespread among students in their school.

Further evidence of the generational perception gap appears throughout much of the survey, as parents' responses to questions on their children's drinking behavior run nearly 20 points out of sync with the answers given by 16- to 20-year-olds. This large gap shows up time and again, whether the question is how often youth get drunk or how frequently they tend to drink over a six-month or one-month period.

For instance, when youth are asked how often they have consumed alcohol during the past six months, 40% say they have done so at least twice a month, whereas only half as many parents (20%) estimate their child's drinking at the same level.

While 56% of all youth indicate that they have had alcoholic beverages to drink on at least one occasion *during the past month*, only 36% of parents believe their son or daughter has done so. Even greater proportions of teenage and young adult males (63%), 19- and 20-year-olds (68%), and college (65%) students admit to drinking at least once during the past month.

Similarly, though *relatively* few respondents acknowledge having gotten drunk[2] during the past month, fully one in four youth (25%) say this has happened to them, but only a handful of parents (8%) believe it to be true of their son or daughter. About three in ten young males, 19- to 20-year-olds, and current college students say they have been drunk in the past month. Interestingly, youth who describe their parents' rules and regulations as very or moderately strict

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[2] Defined for them in the survey question as "to lose control of your physical coordination, or to become very unsteady, or to get dizzy or sick to your stomach."

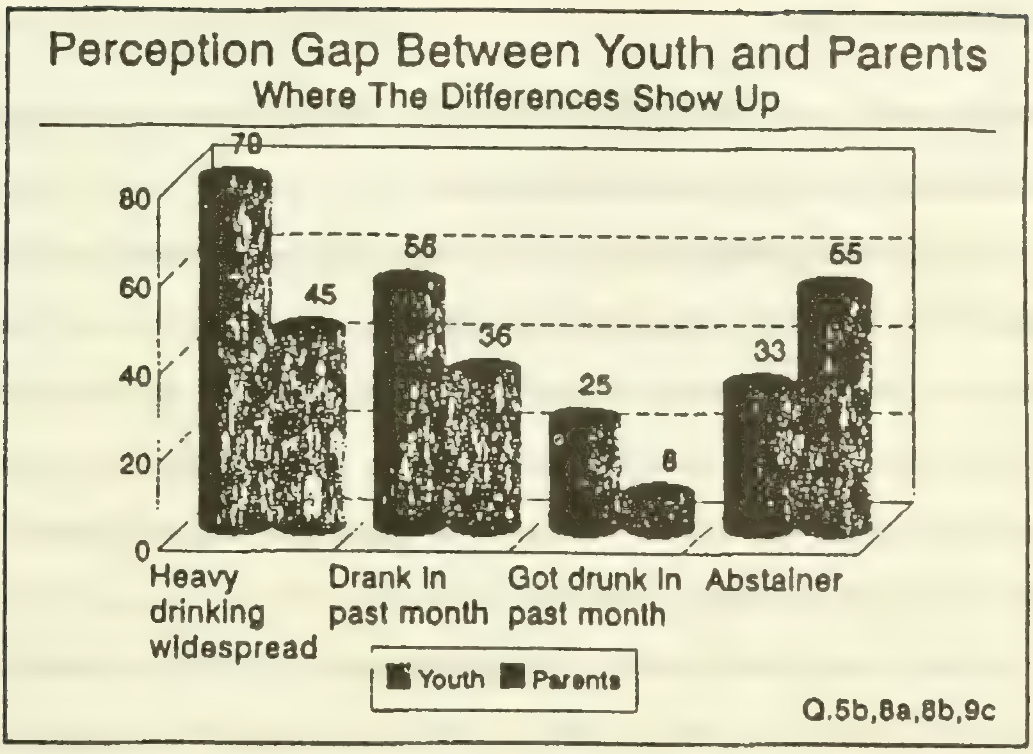
(18%) are far less likely than those who say their parents are very or moderately lenient (31%) to say they have been drunk in recent weeks.

A further point that reveals very arrestingly parents' need for enlightenment on the underage drinking problem is seen in the results to a question that asks respondents to choose which one of the following words best describes themselves (in the case of the youth) or their son or daughter (in the case of the parents).

	Youth %	Parents %	[illegible]
Abstainer--that is, someone who does not drink	33	55	[illegible]
Infrequent drinker	28	25	[illegible]
Light drinker	23	16	[illegible]
Moderate drinker	15	3	[illegible]
Heavy drinker	1	-	[illegible]
Problem drinker	-	1	[illegible]

By 22 points, parents (55%) are more inclined to think of their 16- to 20-year-old as an abstainer than are youth (33%) to describe themselves as non-drinkers. And whereas one in six youth (16%) consider themselves moderate or heavy drinkers, just 3% of parents see their teenage or young adult child as a moderate drinker (no parents say their child is a heavy drinker).

Nearly two in three parents of a 16- to 18-year-old consider their son or daughter to be an abstainer (64%), but youth in that age range are much less likely to describe themselves as non-drinkers (40%). Also, while about one in four 19- and 20-year-olds (23%) classify themselves as moderate or heavy drinkers, only 4% of parents of a 19- or 20-year-old match these appellations to their child.



Perception Gap Between Youth and Parents

Where The Differences Show Up

Q.5b,8a,8b,9c

Young people also have little trouble getting alcohol and, despite parents' lack of awareness about underage drinking, youth apparently find alcohol available to them both at home and in the stores. Approximately one in 10 youth say they most often get alcohol from a supply at home (9%) or from a supply in a friend's home (12%). While just 10% indicate that they purchase alcoholic beverages with a fake ID or an ID borrowed from a friend, 16% say they simply buy it themselves without having to show any identification and 42% say they get an older friend to purchase it.

Clearly, no matter in what guise we ask the questions or how we attempt to measure the underage drinking behavior of these young Americans, the gap between what is reported by teens and young adults and the perceptions of their parents remains significant.

A Dangerous Season

Alcohol-related automobile crashes are the number-one killer of American teenagers, according to government statistics.

On two key questions in our survey, the results sound a warning about this danger that should be heeded by the nation's youth and parents. First, by more than two to one, young people indicate that they tend to drink more during the summer (44%) than they do during the school year (20%). Second, two in five youth say they plan to drink with their friends during the upcoming July 4th holiday (39% say they are definitely or very likely to do so).

Young males (45%) and the older youth in the sample (51% of 19- to 20-year-olds) are especially likely to drink during the Independence Day celebrations. Among the young people who consider themselves moderate or heavy drinkers, more than eight in ten (85%) intend to party; the figure is only slightly smaller for those who say they drink twice a month or more (74%).

These numbers tell a frightening tale--*especially since only one in five parents (20%) believe their teenager will drink during the approaching holiday*. The need for the nation's parents to become more aware of the underage drinking problem could hardly be more urgent.

Millions of visitors to state and national forests and parks all across America this summer will see signs announcing the forest fire danger level. Similarly, the signals from this survey should prompt our awareness that underage drinking will increase substantially during the summer holiday season and that, consequently, the danger level for teenage drinking and driving is very high.

Underage Drinking and Driving

A 52% majority of the students interviewed see drunk driving as a widespread problem among their peers at school. Even though drunk driving has emerged as a major social taboo in the 1990s, a substantial proportion of the youth we questioned–*one in five 16- to 20-year-olds (18%)*–are willing to admit that they have driven drunk or ridden with a drunk driver at least once since the beginning of this year.

As alarming as this finding is, it is as important to recognize that underage drinkers have no clue about what constitutes being legally drunk. Among the three-quarters of 16- to 20-year-olds who say they drink, nearly half (45%) estimate that it takes at least four drinks consumed in a one-hour period for them to get legally drunk: 27% say it would take five or more and 16% believe it would take six or more drinks for them to become drunk under the law. Even allowing for differences in body weight and food intake, these numbers underscore the dangers facing American teenagers and young adults during the summer "drinking season" and every day.

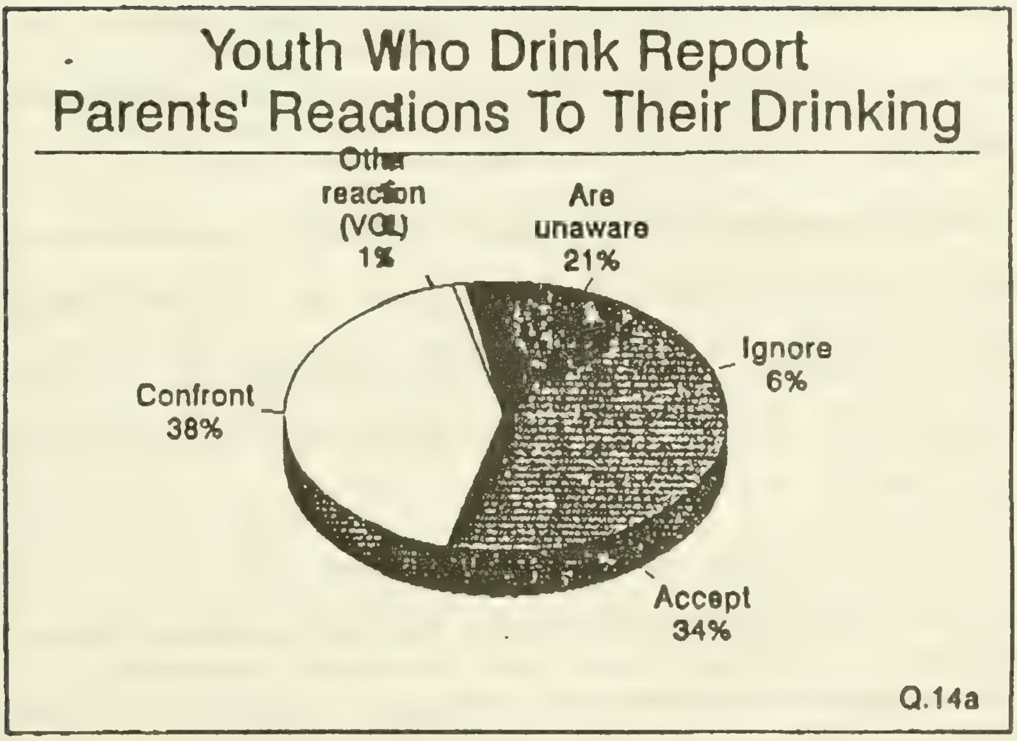
One-third of youth who have experienced drunk driving firsthand in the past six months say that they typically drive after drinking either because they feel their judgment is still sound after a few drinks or because they intend to be cautious and defensive on the road after having several drinks.

Clearly, America's teenagers and young adults are deeply in need of education on what it means to be under the influence of alcohol. In particular, those who engage in the riskiest behavior–youth who drink a lot and those who drive drunk or ride with impaired drivers–are the most uninformed on this crucial issue.

The Communication Gap

As well as the large perception gap between youth and parents that we have referred to throughout this report, there seems to be a significant *communication* gap between the younger and older generations on the issue of underage drinking. These two findings point to the urgent need not only for efforts to open American parents' eyes to the problem, but also for ways to help parents set guidelines and adopt the best approaches for dealing with their children when it comes to drinking alcohol.

While almost all parents (91%) report that they have sat down and talked with their son or daughter about the dangers and risks involved in underage drinking (and 75% of youth who drink confirm this), the effectiveness of such discussions may not be what parents would hope. **Three in five youth who drink (61%) say their parents either accept (34%), ignore (6%), or are unaware of (21%) their drinking behavior.** Only 38% indicate that this is an issue on which their parents confront them. Children of strict parents are more likely than average to say their drinking is something that their parents are just not aware of, while children of lenient parents tend to say that their parents basically accept their drinking without hassling them about it.


Youth Who Drink Report Parents' Reactions To Their Drinking

Moreover, though 65% of youth who drink say they definitely or probably would call their parents for a ride home if they were out and had had too much to drink, a mere 20% report ever having done so (and only 10% of parents say their son or daughter has called for a ride after drinking).

The good news is that, for the young people who *have* made such a phone call, the vast majority say their parents were essentially understanding and forgiving (71%), rather than angry and disapproving (8%).

For the much larger proportion who have not ventured to call, however, only half (51%) think their parents would be sympathetic, while one in three (34%) fear an unsympathetic reaction. A twelfth-grader laments, "I wish I could call my parents if I need a ride home when I'm drunk."

Moreover, three in four 16- to 20-year-olds (74%) say that, during the past six months, they either have used a designated driver to get home, have been a designated driver for friends, or have taken car keys away from someone who had been drinking. This finding alone signifies both that the incidence of underage alcohol consumption is very high if so many youth have found it necessary to keep one another from drinking and driving, and that many young people have assimilated what is "the right thing" to do rather than drive drunk.

Parents' messages to their teenagers about alcohol use, however, are not getting through as well as they should, and the need for constructive dialogue between the generations is clear. In the words of a young man who is 19, "Parents definitely need to confront this problem: do not ignore it. Communication is the key."

SANCTIONS VERSUS INCENTIVES

Senator LAUTENBERG. This will be my last question. There has always been a big debate about sanctions versus incentives.

When we used sanctions—we used the stick—we were able to have an influence on State behavior. While we have safety grant programs to prompt the States to pass tougher laws, some States take very tough action while others do not do anything.

Do you think that sanctioning the States is a more effective tool to get them to act in this area than using incentives—using the stick rather than the carrot?

Dr. NOVELLO. I am never for sanctioning, unless you have given the States full information. I think that anything that is punitive is going to get people to go underground and end up making things look good on the books, but not in reality.

I would rather go and inform them of the consequences of what they have been doing and give them an incentive to change it. I think a punitive approach alone does not help.

Senator LAUTENBERG. Thank you very much, Dr. Novello. We are joined here now by Senator Domenici. Senator, you have heard Dr. Novello's comments. Pretty interesting, I would say.

ALCOHOL-RELATED ACCIDENTS

Senator DOMENICI. Mr. Chairman, first thank you for holding this hearing. I am pleased to be here. Dr. Novello, let me compliment you on your testimony and your answers here today. Somehow or another, in this country, it takes an enormous, almost a catastrophe, before we begin to worry about problems.

In New Mexico—you know my State, you have been there—we have suffered in the past 12 months a series of accidents that have just been absolutely devastating to the people of the State. We had a Christmas accident where a driver who is obviously under the influence—whether guilty of DWI or not, that had not been decided, I guess—drove on the wrong side of a freeway, had a head-on collision going 80, maybe 85 miles an hour, and kills three children and their mother in a car.

So the State, quite appropriately, got very, very worked up about it. The media did a magnificent job presenting the issue. The State is making some changes.

Let me tell you, however, that I don't think the Federal Government is doing enough in this regard. I have introduced two pieces of DWI legislation. I have received very, very broad support from organizations, such as MADD and others, that are dealing every day with this huge problem of alcoholism and our highways.

It is bigger than the highways and highway deaths. In fact, interestingly enough, Mr. Chairman, those who are looking in detail at a health care reform package are talking now, for the first time, about the enormous add-ons to health care costs because of alcoholism. I mean, it is an enormous area for preventive medicine.

Representative Steve Schiff from Albuquerque and I introduced a measure that has two parts. One is to make the .08-percent blood alcohol content [BAC] a national standard. It says that States have the time to put that standard in place, but after the effective date, they start losing some highway funding. It is really fenced rather than lost, for those who say we should not use the highway fund for this purpose.

Under the legislation, 5 percent is withheld even though the first year you give it to that State, but keep it as kind of a leverage; 10 percent is withheld the next and 15 percent the next. The Government gives it to them even if they do not go to .08 BAC, but you give it to them then for alcohol prevention and DWI prevention programs. So the legislation says, you go to the .08 BAC standard (or less) or we will give you a portion of your highway funds that cannot be used for anything other than to perfect your DWI system and to address the issue of alcohol and the highways.

Could I just ask you what you think about that?

Dr. NOVELLO. Well, remember that I have 1 month to go, so I would love to take a look at it, but only from my perspective. But before I give you any feedback, I would have to go and look at it in detail. And I would be more than glad to do that.

Senator DOMENICI. So you are saying this requires a little more review by you. I would ask if you would do that. And I wonder if you would mind, Mr. Chairman, if she would report to us when she has completed her assessment of the legislation. We would be interested.

Senator LAUTENBERG. Dr. Novello's work here has been distinguished, and we would like to see a completion of her task.

Senator DOMENICI. I just want to summarize, one more time, one basic fact. Our best information is that 41,462 Americans died on highways in 1991, the last year for which we have statistics.

The people that were maimed and the billions of dollars spent, I do not happen to have here. But they are dramatic. I think the Federal Government has more of a role that we ought to play.

The second bill that I have introduced with Representative Schiff is that we add a 22d category to those categories that the States can prepare plans on and seek Federal assistance for under the justice assistance formula grants program. The bill would permit States to draw on their allowance to be used for DWI, either perfecting the court system or helping with the prosecution.

I would assume that if this adds no budgetary impact, that you would not be against allowing the States to choose that as one of the areas to which they could apply their funds.

Is that a fair assessment?

Dr. NOVELLO. I would not know much about that in detail, Senator, but before you came in, I reminded this subcommittee of a study that has shown that when you increase the price by even a small amount—like 10 cents—on any kind of alcoholic beverage, the incidence of drinking drops by 10.8 percent.

But more important, for every 23 cents of excise tax that you pay on your drink, the States pay 48 cents on your care when you have a traffic accident. If that is the case, then I think that these data should be known across the board before a decision is made whether to increase the tax only on tobacco or to increase the tax on alcoholic beverages as well.

Senator DOMENICI. Mr. Chairman, I will go into the new category and the .08 BAC and its enforcement with other witnesses, because I do not think it is fair to ask her position policy issues that the administration has not spoken to yet. We will ask that later.

Thank you very much.

BLOOD ALCOHOL CONTENT

Senator LAUTENBERG. I would ask one thing, Dr. Novello. Is the response of a person under 21 different from the response of a more mature person to different alcohol levels?

You used an example before—a 150-pound man might take 2 hours, I think you said, to absorb a bottle of beer?

Dr. NOVELLO. Well, remember that it depends a lot on what do you drink, how much do you drink, and on the amount of time that you have been drinking.

But there is a rule of thumb that says that for every 150 pounds, you take 1 to 2 hours to metabolize one can of beer. And this is why when you talk about moderate drinking, moderate drinking might be one thing you, but might be another thing for a 90-pound woman. And that is why in most studies we find that moderate for men is two drinks and moderate for women is one.

So this is something that we have to look into before we can decide for America what exactly is moderate and not take to heart what the television show "60 Minutes" said about the so-called French Paradox. I do not remember "60 Minutes" being the New England Journal of Medicine.

But at this stage of the game, I think we should look into what is moderate drinking in a more conscientious fashion. I have recommended a blue ribbon panel comprised of all the advocates and all the scientists to determine what moderate drinking is for the American public. For example, what harm can one beer do if you weigh 90 pounds versus 200 pounds.

Senator LAUTENBERG. So the metabolism rate is not necessarily——

Dr. NOVELLO. It is changed by weight——

Senator LAUTENBERG [continuing]. Different. The more weight——

Dr. NOVELLO. How much, and the time.

Senator LAUTENBERG [continuing]. More body mass. Because in regard to Senator Domenici's interest in .08 BAC, my State is .01 for underage or young people. And if the frame of a person is typified by age and development, could .08 really put someone under the weather if the person is slight of build and weight?

And I wonder whether one could use the same standard for mature adults as one could use for a youngster?

Dr. NOVELLO. I think such an assessment is important to knowing what is best for the States. For example, a State that has very few impaired driving accidents should not necessarily have the same stick and carrot as the ones who have many accidents, such as New Mexico. It would be up to the States to decide.

But I am very pleased to see that the Senator is doing something very good for his State according to what is needed by that State.

So .08 might be good for New Mexico, but .01 might be very appropriate for New Jersey or for any other State.

Senator LAUTENBERG. Thank you very much, Dr. Novello. We appreciate your being here, and we once again take the opportunity to compliment you on excellent service to your country.

I know how interested you have been in AIDS research and how interested you have been in the current subject and so many other subjects. You leave a very proud record in the service of your country.

Dr. NOVELLO. Thank you very much.

Senator LAUTENBERG. And you should be delighted with the opportunity that you had and the service that you gave. So we thank you, excuse you, and would ask the next panel of witnesses if they would like to come before us.

But if you have about 10 minutes, would that be a problem for Milo Kirk? Would you have a problem with that? I have a hearing that is just waiting for me.

And Jim Arena. Jim, do you have the time to hang in for a few minutes?

And last, Mr. Brownlee, how about you?

All right, we will recess until a quarter past 11.

[A brief recess was taken.]

NONDEPARTMENTAL WITNESSES

NATIONAL ASSOCIATION OF GOVERNORS' HIGHWAY SAFETY REPRESENTATIVES

STATEMENT OF JAMES A. ARENA, CHAIRMAN, AND CHAIR AND DIRECTOR, NEW JERSEY STATE DIVISION OF TRANSPORTATION, DIVISION OF HIGHWAY AND TRAFFIC SAFETY POLICY

INTRODUCTION OF WITNESS

Senator LAUTENBERG. Thank you very much. The committee resumes its deliberations and, in the following order, we will hear from our witnesses.

Again, thank you for bearing with us while we did our exercise around the halls of this building visiting three other subcommittees.

We are going to have a clock that will show 5 minutes elapsed time, and ask you to summarize your comments. The full statement will be included in the record.

I think each of you has been a witness before, so you know the rules, and I would ask Mr. Arena—welcome. Please give us your comments.

Mr. ARENA. Thank you, Mr. Chairman. I appreciate the opportunity to appear before you today to discuss the problem of underage drunk driving. I am James Arena, the Governor's Representative from New Jersey, Director of the New Jersey Division of Highway Traffic Safety, and Chair of the National Association of Governors' Highway Safety Representatives [NAGHSR] which is the National Association of State Highway Safety Officers.

Mr. Chairman, as the previous witnesses have stated, significant progress has been made over the last decade with respect to young drivers. The fatality rate for young drivers declined more in the last 10 years than any other group largely due to the passage of the National Minimum Drinking Age Law, and the combined efforts of Federal, State, and local governments, Mothers Against Drunk Driving, Students Against Drunk Driving, and other private organizations.

Nonetheless, young drivers have the highest crash rate of all drivers, and are overrepresented in motor vehicle crashes. Reducing the fatality and serious injury rate for young drivers continues to be a major challenge for everyone concerned about highway safety. Reducing youth alcohol impairment continues to be a high priority for all those concerned about improving public health.

PERFORMANCE-BASED INCENTIVE PROGRAMS

Over the past decade, Federal impaired driving incentive grant programs and proposed programs have encouraged States to take specific actions to reduce impaired driving. These programs have emphasized procedure over performance.

While the programs have positively contributed to the reducing in impaired driving fatalities and injuries, they have tended to ignore differences between State needs, resources, and approaches.

NAGHSR would like to suggest an alternative approach that is based on performance standards. The purpose of the performance standards is to provide an incentive to States to improve their overall performance by decreasing the number of crashes and fatalities caused by young drivers. The standards specify the goals to be achieved rather than the procedures for achieving those goals.

Performance standards will be based on the following measures: A State would have reported on average at least 80 percent of their fatally injured driver's blood alcohol concentration test results for a 3-year period, and data is a very critical need and is conspicuously absent in many of our programs. For the 3-year period the average rate of drunk driving fatalities per population involving those under 21 should be significantly below the national average.

In order to apply for an incentive grant, a State would have to require BAC testing of all fatally injured drivers and report at least 80 percent of those tests. States would improve their data bases by satisfying this criteria, which in turn would enable comparisons of State performances, improved problem identification, and better evaluation of the effects of the program on highway safety.

Under the second criterion, States would have to use a population-based fatality rate in order to qualify for an incentive grant. The criterion would measure the number of fatalities caused by drunk drivers between the ages of 14 and 20 divided by the number of people in this age group due to the changes in the number of fatalities from year to year. We recommend a 3-year average be used.

The New Jersey division of highway safety conducted a preliminary analysis of State underage drunk driving fatality rates based on data from NHTSA's fatal accident reporting system [FARS] for the years 1989, 1990, and 1991.

The preliminary analysis shows that out of 24 States that tested and reported at least 80 percent of fatally injured drivers, 10 achieved fatality rates significantly below the national average for 18-year-olds and younger, and 11 achieved fatality rates for the 18- to 20-year-olds that are significantly below the national average.

The performance criteria will encourage States to focus on the primary goal of the reduction in underage impaired driving fatality rates without dictating how they should achieve that goal. It would allow the States to experiment with different approaches or combinations of programs without penalizing them for failure to adopt a particular law or implement a particular drunk driving strategy.

NAGHSR strongly recommends that the committee carefully examine this approach. We also recommend that the committee direct NHTSA to evaluate those States who have achieved a low fatality rate to determine why they have been successful.

Similarly, NHTSA should be directed to evaluate the remaining States to determine what factors have contributed to a high fatality rate among underage drivers. Results of this analysis may lead to modifications of the performance-based program on development of special assistance programs for particular types of States.

In New Jersey, the State Highway Safety Office and other State and local agencies have been addressing the problem of underage drinking, and a number of programs in New Jersey have been very successful.

In New Jersey, drunk driving for minors is a traffic charge heard in a municipal court, but all penalties, and they are extremely severe, are mandatory minimums. Mandatory minimum revocation of 6 months for the first offense. Mandatory assessment and treatment of all those convicted of drunk driving.

In Dr. Novello's earlier testimony, she explained the need for people to understand the disease of alcoholism. Diseases must be treated. By mandating assessment and treatment you just do not put off the problem or put it in jail, you treat it. And for that reason, New Jersey's rate of recidivism is dramatically lower than the rest of the Nation.

We have alcohol and drug education mandated for grades K through 12. Federal 402 funds provided the curriculum materials for all the schools. We are not able to measure how effective the education programs are, but we feel they are extremely effective because alcohol and drug use in our schools shows a steady decline.

Project Graduation, which is a drug- and alcohol-free celebration, has been instituted in 380 of New Jersey's 615 high schools. Mrs. Florio, our first lady, is the chairperson of that task force and encourages vigorous participation. With 402 moneys, we fund approximately 60 to 70 new schools per year.

Governor Florio has established a youth advisory council on drunk driving to gain input from young people. That is a must. They need to be part of the solution because they are part of the culture that has that problem.

And I will leave with you today, Senator, the latest poster that that age group put out informing of the new .01 law that New Jersey has.

DOUBLE ID AND STING OPERATIONS

Recently a North Jersey county had a sting operation and netted 38 alcoholic beverage establishments. Two weeks later they went back and got the same 38 for selling to minors.

Designated driver programs were strongly encouraged. Server training is strongly encouraged. New Jersey does not license convenience stores, and there are a number of other programs in the State of New Jersey which I will leave with you for your consideration.

We feel that the incentive- and performance-based programs are very important if the States are to put together a comprehensive program rather than a prescriptive type of program, and certainly the States need the funding to support those kinds of programs.

This concludes my formal testimony. I commend you for taking the leadership role on impaired driving issues, and I appreciate the opportunity to appear here and would be happy to answer any questions you may have.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you, Mr. Arena. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF JAMES A. ARENA

I. Introduction

It is a pleasure to appear before you today to discuss the problem of underage drunk driving.

I am James A. Arena, Governor's Representative for New Jersey, Director of the New Jersey Division of Highway Traffic Safety and Chair of the National Association of Governors' Highway Safety Representatives (NAGHSR). NAGHSR is the national association of state highway safety offices. Its members are appointed by their Governors to develop and implement their state highway safety programs and to administer the federal highway safety grant programs for their respective states. The Association is primarily concerned about driver behavior issues (such as impaired driving, occupant protection, pedestrian, bicycle, and motorcycle safety) as well as truck safety, roadway safety, emergency medical services, and safety management systems.

Significant progress has been made over the last decade with respect to young drivers. Motor vehicle fatalities involving those aged 15 to 20 has decreased 22.1% from 8,508 in 1982 to 6,630 in 1991. Alcohol-related youth fatalities declined 42.3% from 5,380 in 1982 to 3,105 in 1991. The number of fatally injured drivers less than 21 years of age declined from 2,714 in 1980 to 1,495 in 1992. Driver intoxication rates of fatally impaired young drivers (those whose blood alcohol concentration [BAC] exceeded .10 g/dl) of those 16 to 20 also declined from 31.1% to 20.1%. In fact, the fatality rate for those aged 15 to 20 declined more in the last ten years than for any other group, largely due to the passage of the national minimum drinking age law and the combined efforts of federal, state, and local governments, the Mothers Against Drunk Drivers, Students Against Drunk Drivers, and other private organizations.

Nonetheless, motor vehicle crashes continue to be the leading cause of death for persons aged 6-33. Young drivers have the highest crash rate of all drivers and are over-represented in motor vehicle crashes. According to the National Transportation Safety Board, young persons under 21 were 7.1% of licensed drivers, but they accounted for 14.9% of motor vehicle deaths in 1990. The alcohol involvement rate for young drivers, based on the total licensed driver population, is about twice that of the over 21 age driver. Binge drinking has become a major problem, particularly among high school students, and alcohol is widely available to youth at retail outlets that fail to check for proper identification.

Reducing the fatality and serious injury rate for young drivers continues to be a major challenge for everyone concerned about highway safety. Reducing youth alcohol impairment continues to be a high priority for all those concerned about improving public health.

II. Performance-Based Incentive Programs

Over the past decade, federal impaired driving incentive grant programs and proposed programs have encouraged states to take specific actions to reduce impaired driving. These programs have emphasized procedure over performance. While the programs have positively contributed to the reduction in impaired driving fatalities and injuries, they have tended to ignore differences between state needs, resources, and approaches. At best, the procedural approach has tended to overlook achievements in states whose programs do not conform with the specific requirements of the federal incentive grant program. At worst, this approach has stifled innovation by failing to give credit for strategies that are not consistent with specified procedures.

NAGHSR would like to suggest an alternative approach that is based on performance standards. The purpose of the performance standards is to provide an incentive to states to improve their overall performance by decreasing the number of crashes and fatalities caused by young drunk drivers. The standards specify the goals to be achieved rather than the procedures for achieving those goals. The performance standards would be based on the following measures:

1. The state should have reported, on average, at least 80% of their fatally injured drivers' Blood Alcohol Concentration (BAC) test results for the three years prior to the grant;

2. For the prior three years, the average rate of drunk driver fatalities per population involving those under 21 should be significantly below the national average.

In order to apply for an incentive grant, a state would have to require BAC testing of all fatally injured drivers. Although there are an increasing number of states which test and report fatally impaired drivers, only half of the states satisfied the first criterion in 1991. The percentage of drivers tested for BAC levels in 1991 ranged from a low of 31% in Kansas to a high of 96% in Rhode Island. If states were, as a condition of an incentive grant, required to conduct BAC testing and to report at least 80% of those tests, then it would be easier to compare state performances, identify the need to implement a drunk driving program, and evaluate the effects of the program on highway safety.

Under the second criterion, states would have to use a population-based fatality rate in order to qualify for an incentive grant. The criterion would measure the number of fatalities caused by drunk drivers between the ages of 14 to 20, divided by the number of people in this age group. Underage population is used in lieu of vehicle miles of travel (VMT) because age-specific VMT data is very difficult to obtain. Due to changes in the number of fatalities from year to year, a three-year average rate is recommended. A three-year average will enable the states to compensate for unusual one-year fluctuations while providing a picture of fatality trends.

The New Jersey Division of Highway Traffic Safety conducted a preliminary analysis of state underage drunk driving fatality rates based on data from NHTSA's Fatal Accident Reporting System (FARS) for 1989-91. The preliminary analysis shows that, out of the 24 states that tested and reported at least 80% of fatally injured drivers, ten achieved fatality rates significantly below the national average for 18-year olds and younger, and eleven achieved fatality rates for 18- to 20-year olds that are significantly below the national average. (See attachments.)

This approach allows many states to qualify for a grant each year depending upon their comparative performance. The performance criteria will encourage states to focus on the primary goal -- reducing the underage impaired driving fatality rate -- without dictating how they should achieve that goal. It would allow the states to experiment with different approaches or combinations of programs without penalizing them for failure to adopt a particular law or implement a particular drunk driving strategy. It would provide incentives to a small number of qualifying states, but not so small a number that other states would be discouraged from applying. Nor would the program be a giveaway to a large number of states that are already doing a good job.

Since the underage drinking and driving problem is such a complex one, requiring comprehensive and integrated solutions, we feel that the performance approach is an especially appropriate and useful one. Drunk driving laws alone cannot solve the problem. A state like New Mexico, which has led the nation in the adoption of impaired driving laws and the development of self-sufficient programs, has one of the worst drunk driving fatality rates among those states which conduct BAC testing, according to the preliminary analysis. Drunk driving laws will have minimal impact if the public is unaware of their existence, if they are not adequately enforced, and if they are not prosecuted in accordance with each law's intent. Drunk driving programs can be more effective if all the players -- state and local highway safety, enforcement, public health, alcohol beverage control agencies, as well as private sector and grassroots groups, and youth themselves -- come to together and develop complementary and cooperative programs. A performance-based federal program would encourage just such creative solutions to the underage problem.

NAGHSR strongly recommends that the Committee carefully examine this approach. We also recommend that the Committee direct NHTSA to evaluate those states that have achieved a low fatality rate to determine why they have been successful.

Similarly, NHTSA should be directed to evaluate the remaining states to determine what factors have contributed to a high fatality rate among underage drivers. Data should be examined on a state-by-state basis to determine the effect of specific underage laws, targeted prevention programs, coordinated enforcement and public information programs. In rural states like New Mexico, the high fatality rate may be attributable to long response times for the emergency medical services systems. Factors such as these should be closely examined. Results of this analysis may lead to modifications of the performance-based program or development of special assistance programs for particular types of states.

III. Funding for Impaired Driving Programs

To help states and communities address the problems of underage drinking, adequate resources are needed. Three existing programs -- the 402 State and Community Highway Safety Grant program (23 U.S.C. 402), the 408 (23 U.S.C. 408) impaired driving incentive grant program, and the 410 Drunk Driving Prevention incentive grant program (23 U.S.C. 410) -- provide federal grants for state and local impaired driving programs.

While ISTEA authorized $143 million for the 402 program in FY 94-97, DOT has requested only $123 million in appropriations for the 402 program in FY 94.

Over the last several years, demands for state action on highway safety issues have increased dramatically. States are being asked to more aggressively confront impaired driving (particularly among underage drivers), to increase safety belt usage, to improve the level of correct child safety seat usage, to improve enforcement of posted speed limits, to address the problem of drugged driving, to encourage the passage of motorcycle helmet laws and to enforce those laws, among other things.

At the same time, highway safety grant funding has not increased to meet those demands. Funding for the NHTSA portion of the 402 program was increased only slightly in FY 92 for the first time in seven years, and then reduced again the following year. Funding for the FHWA portion of the 402 program has remained at the same $10 million level for the past twelve years. If inflation were taken into account, funding for the 402 program would actually show a 30% - 40% decline over the last ten years. Revenue for the 402 program did not increase in 1987, when other highway funding leaped upward, and no highway safety grant increases were proposed under the economic stimulus package.

Even though the 402 program is a relatively small federal program, it has been a highly successful one. It has been a major contributor to the decline in the motor vehicle fatality rate. Improvements in vehicle design standards, roadway improvements, emergency medical services programs, and highway safety research and state funding have also contributed to the declining death rate. The success of the federal highway safety grant programs in my own state of New Jersey is shown in the attachments.

Based on the NHTSA report on the cost of motor vehicle injury, fatal crashes alone cost $31.2 billion in 1990 -- $702,281 for each traffic death. If the societal cost of $702,281 per fatality is applied to the 1,962 reduction in the number of fatalities which occurred between 1991 and 1992, then the U.S. avoided $1.38 billion in medical and other costs during that time period. NHTSA also calculated that in 1992, severe injuries declined 3,256 from 1991 levels. At an average cost of $373,393 for each severe injury, an additional cost of $1.21 billion was avoided as a result of highway safety improvements.

During FY 92, $190 million was appropriated for all federal highway safety driver behavior grant programs, including the incentive grant programs ($118 million for the NHTSA 402 program). A comparison of the savings from the fatality reductions to the expenditures for the grant programs indicates that, for every $1 spent on grant programs, $7.25 was avoided in fatality costs. If the avoided costs of severe injuries are included, the benefit rises to $13.53 for each federal highway safety grant dollar spent. Even assuming very conservatively that driver behavior grant programs contributed to only half the reduction in fatalities and injuries (and that other factors and programs contributed to the remaining half), then the return on the investment in federal highway safety programs would still be nearly 7:1 -- a return that few federal programs can claim.

The 402 program has helped states develop programs which led to passage of state laws, improved enforcement of existing laws, changed public attitudes, built state and local leadership in highway safety and, at least in part, led to the substantial savings in medical and other costs. At a time when there is overwhelming concern about escalating health care costs, any federal program which will keep costs down is well worth renewed federal support.

Additional 402 funds could be used to pay for underage drinking programs and traffic records improvements, among other things. NAGHSR urges this Subcommittee to fund the 402 program at authorized levels.

The Section 408 alcohol incentive grant program was unaffected by the passage of ISTEA. The program will remain in existence until available obligational authority is depleted. At the beginning of FY 93, $27 million in obligational authority was available in the 408 account. $11 million was appropriated for the 408 program in FY 93, leaving a remainder of approximately $16 million.

NAGHSR urges that the entire $16 million be appropriated in FY 94 and the program be closed out by the end of FY 94. Preliminary estimates show that all states presently receiving 408 funds will continue to be eligible for them in FY 94. Additionally, the state legislatures of New York and Florida are presently considering legislation which would enable both states to qualify for 408 funds. If eligible, Florida would receive an apportionment of $1.7 million. New York's apportionment would be even higher. If one or both states become eligible, then the full amount remaining in the 408 account will be needed.

Under ISTEA, the Section 410 was refocused on five of the most significant impaired driving activities that states could undertake. The eligibility criteria were also restructured so that they were more performance-oriented -- a goal that NAGHSR strongly supports. A technical error was made, however, and one of the basic grant eligibility criteria was inadvertently omitted from the final version of the authorizing legislation. The FY 93 DOT appropriations legislation corrected this error and made several other changes to the 410 program, all of which NAGHSR supported.

STATES WITH A SIGNIFICANT DIFFERENCE FOR DRUNK DRIVING FATALITY RATE PER 100,000 POPULATION FROM THE AVERAGE FATALITY RATE. 1989-1991

	UNDER 18 YEARS OLD	18 TO 20 YEARS OLD	36 TO 40 YEARS OLD
CALIFORNIA	*	*	*
COLORADO			
CONNECTICUT		*	*
DELAWARE	*		
GEORGIA		*	**
HAWAII	*		*
ILLINOIS		*	*
MAINE	*	*	*
MASSACHUSETTS	*	*	*
MONTANA		**	**
NEBRASKA			*
NEVADA			**
NEW JERSEY	*	*	*
NEW MEXICO	**	**	**
NORTH CAROLINA	*	*	*
OREGON			
RHODE ISLAND	*	*	*
SOUTH DAKOTA	**		
UTAH	*	*	
VIRGINIA	*	*	*
WASHINGTON			
WEST VIRGINIA		**	**
WISCONSIN			
WYOMING		**	
AVERAGE	7	45	19.7

NOTE:

* SIGNIFICANTLY BELOW AVERAGE

** SIGNIFICANTLY ABOVE AVERAGE

THE ABOVE STATES ARE THOSE WITH GOOD REPORTING OF DRIVER FATALITIES FOR BAC TESTS.

STATES WITH A SIGNIFICANT DIFFERENCE FOR DRUNK DRIVING FATALITY RATES FROM THE AVERAGE FATALITY RATE. UNDER 18 YEARS OLD. -1989 TO 1991-

	DRUNK DRIVING FATALITY RATE PER 100,000 POPULATION	
CALIFORNIA	3.8	*
COLORADO	5.3	
CONNECTICUT	6.4	
DELAWARE	3.1	*
GEORGIA	6.2	
HAWAII	1.8	*
ILLINOIS	6.8	
MAINE	1.5	*
MASSACHUSETTS	2.8	*
MONTANA	8.6	
NEBRASKA	8.0	
NEVADA	8.7	
NEW JERSEY	2.3	*
NEW MEXICO	20.9	**
NORTH CAROLINA	4.2	*
OREGON	7.4	
RHODE ISLAND	0.0	*
SOUTH DAKOTA	24.9	**
UTAH	4.0	*
VIRGINIA	3.2	*
WASHINGTON	6.8	
WEST VIRGINIA	10.1	
WISCONSIN	7.2	
WYOMING	14.1	
AVERAGE	7.0	

NOTE:

* SIGNIFICANTLY BELOW AVERAGE
** SIGNIFICANTLY ABOVE AVERAGE

THE ABOVE STATES ARE THOSE WITH GOOD REPORTING OF DRIVER FATALITIES FOR BAC TESTS.

STATES WITH A SIGNIFICANT DIFFERENCE FOR DRUNK DRIVING FATALITY RATES FROM THE AVERAGE FATALITY RATE. 18 TO 20 YEARS OLD AGE GROUP. -1989 TO 1991-

	DRUNK DRIVING FATALITY RATE PER 100,000 POPULATION	
CALIFORNIA	31.3	*
COLORADO	48.6	
CONNECTICUT	35.1	*
DELAWARE	62.5	
GEORGIA	36.9	*
HAWAII	37.1	
ILLINOIS	26.9	*
MAINE	24.9	*
MASSACHUSETTS	23.5	*
MONTANA	97.9	**
NEBRASKA	53.9	
NEVADA	58.5	
NEW JERSEY	12.6	*
NEW MEXICO	93.9	**
NORTH CAROLINA	22.1	*
OREGON	52.8	
RHODE ISLAND	18.2	*
SOUTH DAKOTA	64.5	
UTAH	11.1	*
VIRGINIA	18.8	*
WASHINGTON	41.7	
WEST VIRGINIA	68.8	**
WISCONSIN	39.5	
WYOMING	99.9	**
AVERAGE	45.0	

NOTE:
* SIGNIFICANTLY BELOW AVERAGE
** SIGNIFICANTLY ABOVE AVERAGE

THE ABOVE STATES ARE THOSE WITH GOOD REPORTING OF DRIVER FATALITIES FOR BAC TESTS.

STATES WITH A SIGNIFICANT DIFFERENCE FOR DRUNK DRIVING FATALITY RATES FROM THE AVERAGE FATALITY RATE. 36 TO 40 YEARS OLD AGE GROUP. -1989 TO 1991-

	DRUNK DRIVING FATALITY RATE PER 100,000 POPULATION	
CALIFORNIA	16.0	*
COLORADO	19.3	
CONNECTICUT	7.5	*
DELAWARE	19.1	
GEORGIA	23.9	**
HAWAII	11.5	*
ILLINOIS	15.5	*
MAINE	6.9	*
MASSACHUSETTS	7.8	*
MONTANA	35.2	**
NEBRASKA	12.1	*
NEVADA	50.4	**
NEW JERSEY	10.0	*
NEW MEXICO	46.7	**
NORTH CAROLINA	15.7	*
OREGON	19.1	
RHODE ISLAND	7.6	*
SOUTH DAKOTA	20.9	
UTAH	12.9	*
VIRGINIA	10.4	*
WASHINGTON	18.2	
WEST VIRGINIA	35.4	**
WISCONSIN	20.8	
WYOMING	29.3	
AVERAGE	19.7	

NOTE:

* SIGNIFICANTLY BELOW AV
** SIGNIFICANTLY ABOVE AVERAGE

THE ABOVE STATES ARE THOSE WITH GOOD REPORTING OF DRIVER FATALITIES FOR BAC TESTS.

MOTOR VEHICLE ACCIDENT STATISTICS

NEW JERSEY

As a result of a concerted effort by states and local government and the initiatives of the National Highway Traffic Safety Administration, as well as safety-oriented organizations, there has been a downward trend in the rate of traffic fatalities, injuries, and severe accidents over the past twenty years. These efforts have concentrated on programs including public education and law enforcement as well as roadway and vehicle safety improvements.

The table presented here is based on data provided by the Governor's Highway Safety Representative's office. It presents the incidence and severity of fatal and injury traffic crashes, fatalities and fatality rates per one hundred million vehicle miles traveled over the past twenty years. There is a noticeable downward trend in motor vehicle related fatalities, injuries and fatality.

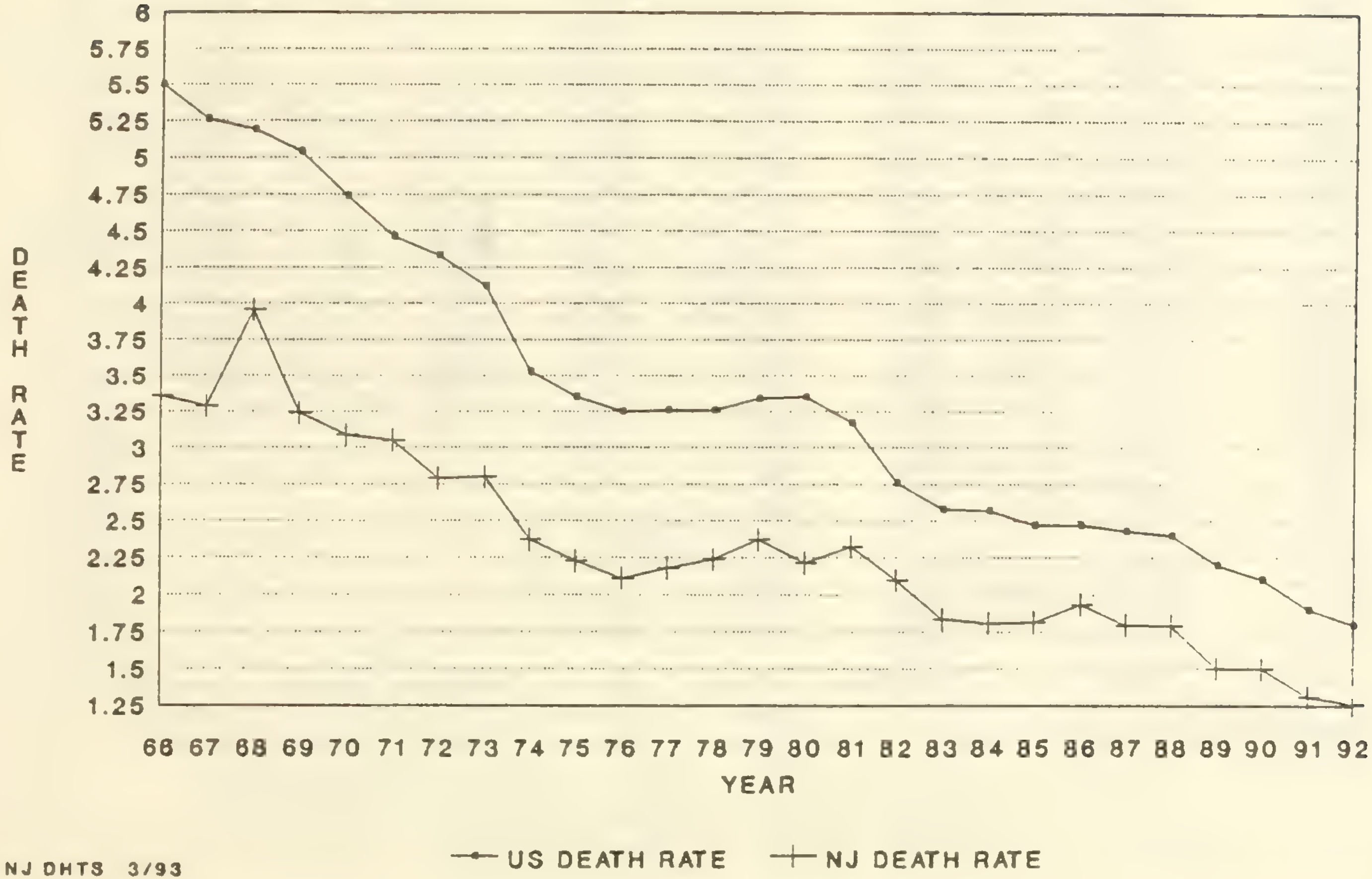
The first graph which is based on these statistics, compared each state's actual fatality rate per one hundred million vehicle miles to the national average from 1972 to 1991. All states have had a declining fatality rate over the past twenty years.

The second graph, based on those data, presents a comparison between actual and projected fatality rates for individual states through the year 2000. These rates were statistically determined using Ordinary Least Square (OLS) regression models and were based on all available statistics over the past twenty years.

The third graph is a comparison of estimated fatalities from 1980 through 2000 for two scenarios. The first scenario assumes no significant highway, vehicle and traffic safety improvements since 1966. The other scenario takes into account the improvement since the national traffic safety program was enacted in 1966. The objective of the comparison is to assess the benefit of those improvements. The difference between these estimates represents an estimate of 13,721 lives saved for New Jersey because of the positive impact of these programs. This represents an estimated $6.5 billion in total social cost savings for this period. This is a conservative figure. The societal cost per fatality was estimated to be only $270,000 in 1980. This amount was increased 5.2 percent per year up to 1992 which reached a cost of $500,000. This is less than the $700,000 per fatality estimated by NHTSA in 1992. An increase of 2 percent annually was estimated for the year 1993 through the year 2000.

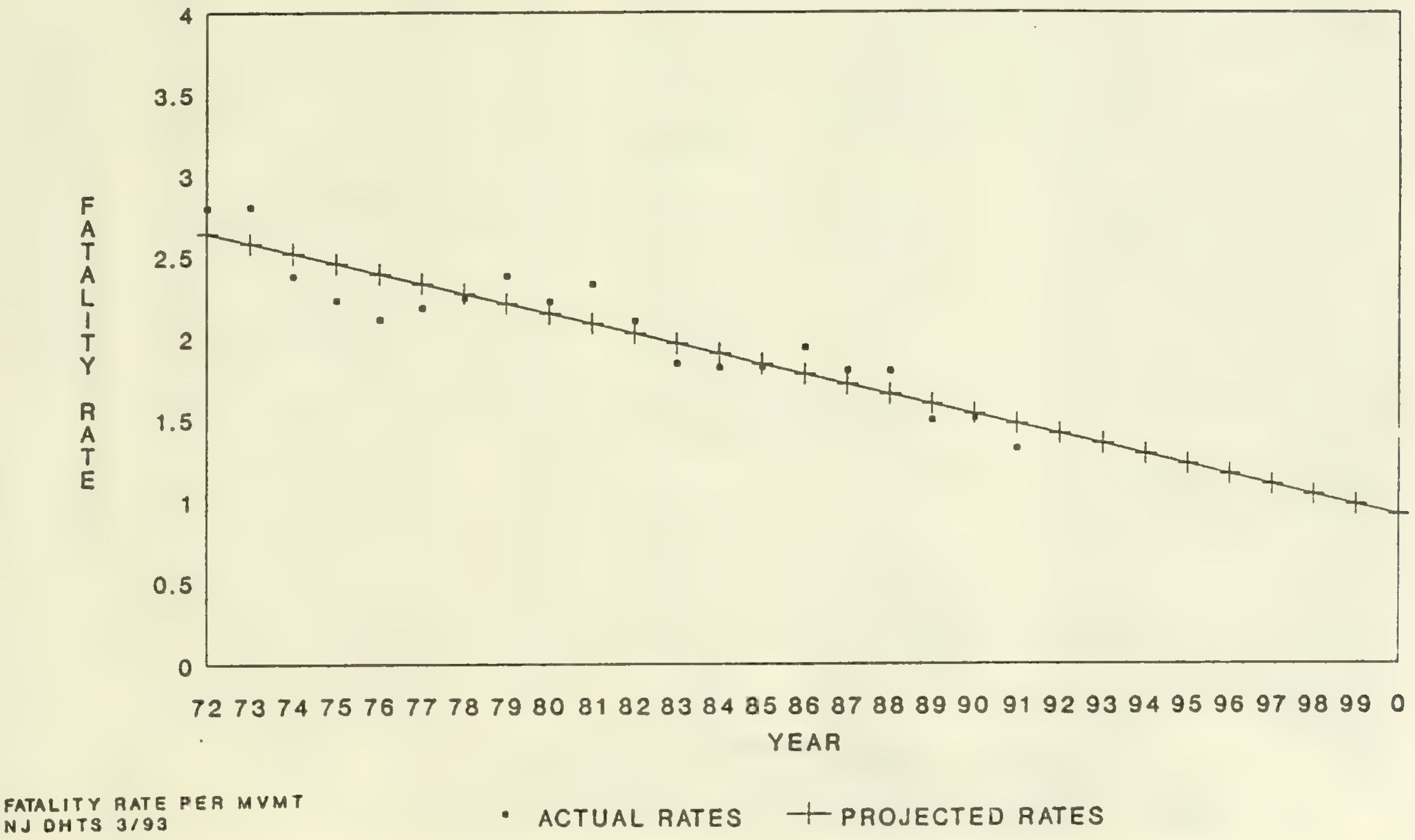
STATE	NEW JERSEY											UNITED STATES
YEAR	TOTAL CRASHES	FATAL ACCIDENTS	FATALITIES	INJURY ACCIDENTS	INJURIES	PDO ACCIDENTS	LICENSED DRIVERS	REGISTERED VEHICLES	POPULATION	V.M.T.	FATALITY RATE	FATALITY RATE PER MVMT
1965			1,095				3,426,669	3,077,962	7,183	32,648	3.35	5.3
1966			1,127				3,567,521	3,235,063	7,198	33,562	3.36	5.5
1967			1,168				3,631,529	3,326,498	7,204	35,535	3.29	5.26
1968			1,352				3,790,879	3,459,196	7,269	34,167	3.96	5.19
1969		1,151	1,272				3,925,259	3,615,418	7,286	39,263	3.24	5.04
1970		1,142	1,279				4,099,913	3,744,201	7,298	41,463	3.08	4.74
1971		1,177	1,319				4,201,985	3,920,759	7,303	43,289	3.05	4.46
1972		1,202	1,314				4,259,612	4,068,304	7,322	47,083	2.79	4.33
1973			1,348				4,472,550	4,307,602	7,372	48,167	2.80	4.12
1974	210,194	1,038	1,121	79,428	117,637	129,728	4,550,740	4,426,271	7,408	47,244	2.37	3.53
1975	219,526	957	1,079	81,702	119,335	136,867	4,640,578	4,427,739	7,350	48,445	2.23	3.35
1976	230,382	946	1,056	82,947	120,713	146,489	4,651,468	4,527,758	7,358	50,081	2.11	3.25
1977	250,013	1,003	1,109	90,122	131,533	158,888	4,755,519	4,498,441	7,349	50,893	2.18	3.26
1978	264,244	1,046	1,160	90,413	133,362	172,785	4,814,851	4,644,382	7,352	51,805	2.24	3.26
1979	231,768	1,075	1,166	88,895	132,264	141,798	4,902,802	4,816,808	7,358	49,140	2.37	3.34
1980	220,226	1,050	1,148	82,963	122,796	136,253	4,908,897	4,867,439	7,365	51,841	2.21	3.35
1981	221,873	1,070	1,193	83,880	125,300	136,923	5,027,110	4,802,621	7,406	51,328	2.32	3.17
1982	221,905	990	1,086	81,920	121,513	138,995	4,934,746	5,022,105	7,427	51,802	2.10	2.76
1983	213,842	892	959	80,847	120,589	132,103	4,900,221	5,022,210	7,464	52,217	1.84	2.58
1984	223,052	883	947	86,147	128,926	136,022	4,851,046	5,022,130	7,511	52,312	1.81	2.57
1985	244,240	908	988	91,356	136,401	151,976	4,909,366	5,036,366	7,561	54,386	1.82	2.47
1986	264,732	975	1,070	96,770	146,598	166,987	5,267,489	5,395,489	7,619	55,349	1.93	2.47
1987	281,018	929	1,023	99,047	151,694	181,042	5,296,386	5,211,800	7,672	57,017	1.79	2.43
1988		966	1,051				5,460,192	5,348,591	7,718	58,671	1.79	2.4
1989		814	891				5,615,102	5,636,330	7,721	59,898	1.49	2.2
1990			886				5,584,727	5,652,382	7,730	58,923	1.50	2.1
1991			784							59,797	1.31	1.9
			768							60,992	1.26	1.8

NEW JERSEY VS NATION 1966-1992
FATALITY RATE PER 100 MILLION VEHICLE MILES



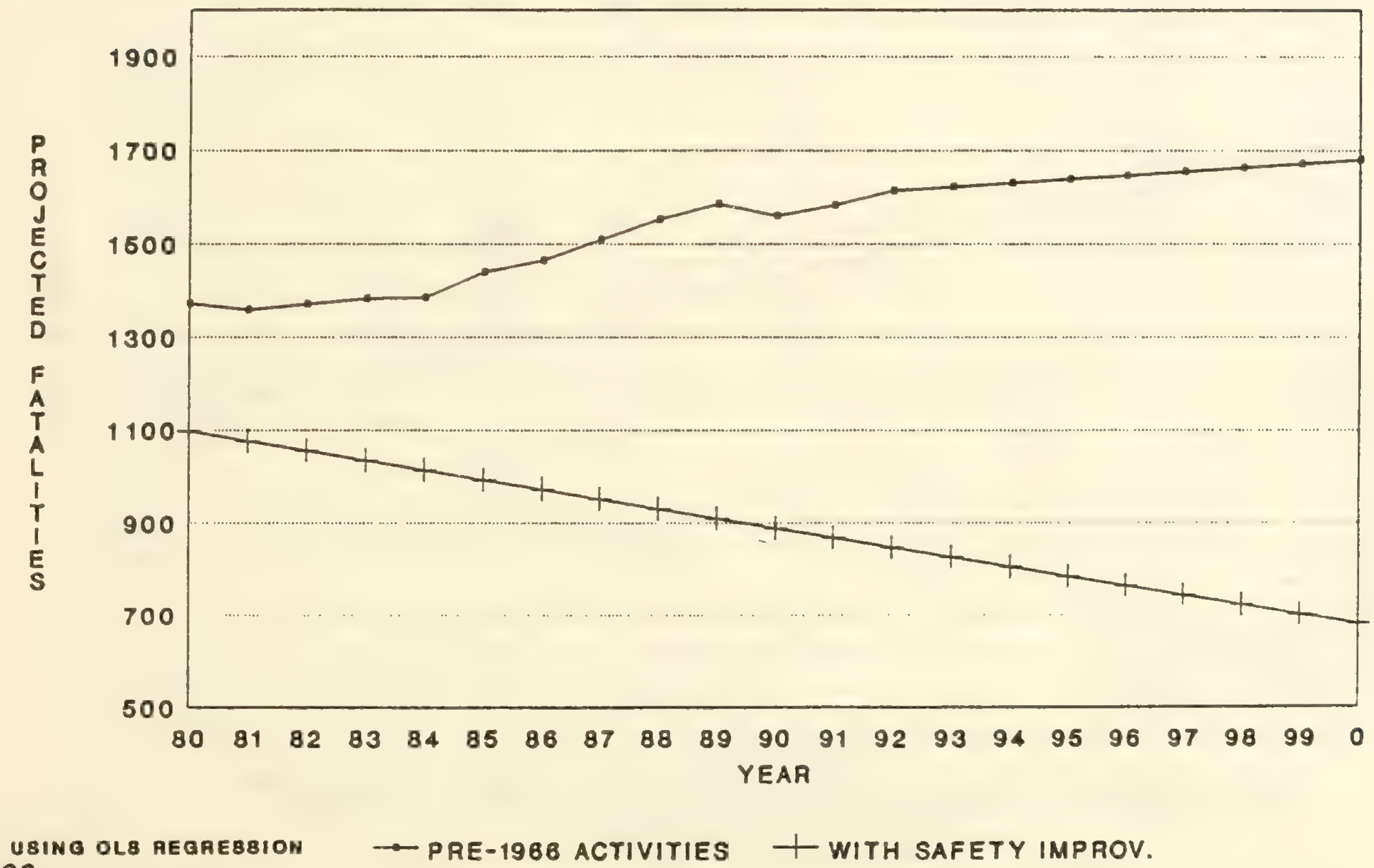
NJ DHTS 3/93

NEW JERSEY
ACTUAL AND PROJECTED FATALITY RATES
1972-2000



FATALITY RATE PER MVMT
NJ DHTS 3/93

NJ PROJECTED FATALITIES WITH HIGHWAY AND VEHICLE SAFETY IMPROVEMENTS SINCE 1966
VS. PRE-1966 HIGHWAY SAFETY ACTIVITIES



PROJECTIONS USING OLS REGRESSION
NJ DHTS 3/93

As a result of the changes enacted in ISTEA and the appropriations bill, nineteen states qualified for 410 grants in FY 92. NHTSA estimates that all those states, and potentially four to six more may be eligible for grants in FY 93. (FY 93 grants had been delayed pending the recent promulgation of final 410 implementing regulations.) We believe that the 410 program has been instrumental in motivating states to pass administrative license revocation laws and to develop self-sufficient impaired driving programs. Since the program's inception in 1992, four states have adopted ALR laws, four states have passed .08 BAC laws, and three states have adopted zero tolerance laws for underage drivers.

We are pleased that the Administration has requested $25 million (the authorized level) for the 410 program in FY 94 and that funding will be an increase over last year's level. However, we do not feel that this amount will be enough, given the additional applicants to the program. In its recent testimony before the House Public Works Committee, NAGHSR urged that Committee to increase the authorization for the 410 program. We hope the Appropriations Committees will support that position and fund the 410 program at increased levels.

IV. Underage Drinking Conference

NAGHSR is already taking steps to address the problem of underage drinking. Last September, NAGHSR and the National Association of State Alcohol and Drug Abuse Directors (NASADAD) sponsored a national conference on underage drinking. The conference was supported by NHTSA, with assistance from the Center for Substance Abuse Prevention (CSAP) of the U.S. Department of Health and Human Services. More than 140 people representing state highway safety agencies, state alcohol and drug abuse agencies, advocacy groups, community programs, law enforcement agencies, federal agencies and others participated. Six youth were also active conference participants.

The purpose of the conference was to identify realistic and viable actions that states and localities could take to address the problems of underage drinking. Participants were grouped by regions and asked to produce a set of recommended actions in response to each of panel presentations on prevention and treatment, legislation and licensing, and enforcement and judicial issues. The recommendations were then grouped into regional action plans. A copy of the conference summary has been made available to the Subcommittee.

At the conclusion of the conference, states and communities were encouraged to return to their jurisdictions and take the lead on underage drinking in their region. NHTSA and CSAP pledged to continue to provide technical assistance to states and localities to help them in this endeavor.

NAGHSR and NASADAD are currently negotiating with NHTSA and CSAP to follow up on the conference recommendations. The Associations plan to survey their members to identify the kinds of programs the states have implemented, the barriers to program implementation, and the technical assistance states need to enable them to move forward on their underage drinking programs. Additionally, the Associations plan to evaluate a number of different state underage drinking programs and laws and identify those that can serve as a model for other states. The contract is expected to begin in June and will end May 31, 1994. We will be most happy to keep the Subcommittee apprised of our findings and progress.

Mr. Chairman, this concludes my testimony. I commend you for taking a leadership role on impaired driving issues, and I appreciate the opportunity to appear before you on an issue of such importance. I would be happy to answer any question you may have.

MOTHERS AGAINST DRUNK DRIVING

STATEMENT OF MILO KIRK, PRESIDENT

Senator LAUTENBERG. Ms. Kirk, we are happy to see you again, as usual, working on the right side of this issue. We are anxious to hear your testimony.

Ms. KIRK. Thank you, Senator, and good morning. It is indeed a pleasure for me to be here as president of Mothers Against Drunk Driving and representing more then 430 of our chapters across the Nation, and we do enjoy the support of about 3.2 million members and supporters in the Nation.

It is a particular pleasure to be before this subcommittee and you, Senator Lautenberg. You and MADD have a long history, beginning with your sponsorship in 1984 of the National Minimum Drinking Age Bill of 21. You can take justified pride in the fact that thousands of young Americans are alive today because of your efforts.

The passage of 21 was a major achievement for you, for Congress, and the Federal Government, and for MADD, but we cannot rest on our laurels.

Substantial progress in the fight to achieve greater safety on our Nation's highways was shown in 1992. The number of fatalities was the lowest in 30 years. A concerted effort at the national, State, and local levels to fight drunk driving played a large part in saving many lives.

Yet in 1992, 46 percent of those who died on our highways did so because someone combined drinking and driving. In addition, 1.2 million people were injured in crashes involving alcohol.

Using conservative estimates, drunk driving continues to cost society some $46 billion each year in direct costs. Medical costs associated with drunk driving continue to run about $5.5 billion a year.

And with that, Senator Lautenberg, I do have a paper that has been prepared by MADD on health care costs and drunk driving that I would like to submit for the record.

Senator LAUTENBERG. It will be accepted.

Ms. KIRK. Thank you. Since the founding of MADD in 1980, we have come a long way. The American public no longer views being drunk and driving drunk the way it did in the past. Drunk driving is no longer a laughing matter. The public now understands that drunk driving is no accident. It is a violent crime.

Mr. Chairman, as you know, drunk drivers do not discriminate. They are equal opportunity killers. They do not distinguish between rich or poor, black or white, Republican or Democrat, famous or unknown. The recent tragic death of Nancy Thurmond underscores this fact. For this tragedy to come to the family of Senator Thurmond, who had labored with MADD in the fight for justice for victims of drunk driving crashes is doubly tragic.

This committee is to be commended, Mr. Chairman, for its dedication to the cause of fighting drunk driving. Last year, you amended the NHTSA section 410 incentive grant program to put on a workable footing. The 410 program as modified is a good program. We think the States and NHTSA share this view.

Among MADD's objectives for this year, Mr. Chairman, are the passage in every State of administrative license revocation, the adoption of a nationwide .08 BAC level as the definition of intoxication, and efforts to strengthen the enforcement of the minimum drinking age.

Administrative license revocation is now the law in 33 States and the District of Columbia. Nine States have now passed .08 BAC. MADD is supportive of legislation offered by a member of this subcommittee, Senator Domenici, to increase the inducement given to States to adopt .08 as their definition of intoxication.

There has been substantial misinformation spread around Capitol Hill about the amount of alcohol it takes to reach .08. MADD does not think that a six pack on an empty stomach is social drinking or comparable to a glass of wine with dinner. We are not prohibitionists and we think a rational discussion of what constitutes impairment will not put the alcohol industry out of business.

We trust that a careful consideration of Senator Domenici's legislation will clarify many of the misguided claims made by those who have a vested interest in selling one more drink.

Mr. Chairman, the 21 law you authored has saved thousands of lives, but we believe that with more aggressive enforcement it could save thousands more. The studies done by NHTSA show a savings of about 1,000 lives per year. The studies on enforcement by the Surgeon General's office, the Insurance Institute for Highway Safety, and others show a profound lack of enforcement of 21, particularly in large cities like the District of Columbia.

It took the death of a bright, promising high school senior in Fairfax County, VA, to activate local law officials to concentrate on the purchase and selling of alcoholic beverages to underage youth in this area. MADD looks forward to the day when good policy is no longer driven by tragedy.

Mr. Chairman, the fulfillment of Congress' goal in passing the 21 bill comes down to one word—responsibility. Those who sell and advertise alcoholic beverages have to exercise responsibility and be sensitive to the impact of their message to youth. Young people have to assess the cost of drinking and driving and exercise responsibility by finding a way to cruise without booze, as the kids say.

No level of government can legislate good parenting. Parents who serve alcohol to teenagers, falsely believing that alcohol is not to be equated with drugs, are not exercising responsibility. It used to be said that the Federal Government could not legislate morality, but it could put the Government on the side that is moral. That is what we propose you do.

The most precious possession of young people is a driver's license. You, Mr. Chairman, have authored a law which says that States which fail to revoke the license of someone found using illegal drugs should lose highway funds. Logically, that law should be extended to America's most frequently abused drug, alcohol.

Individuals under the legal drinking age of 21 in any State who drive after consuming alcohol should lose their driving privileges. And States which fail to withhold driving privileges from such persons should be treated the same as under your legislation dealing with the so-called hard drugs.

As for those who sell to underage persons, they too should lose their license to sell alcoholic beverages. Encouraging the States to better track the purchase of alcoholic beverages by methods like keg registration would be helpful as well.

But, ultimately, the enforcement of underage drinking laws is a function of resources. A State or city can have the best statute known to humankind, but if it has a shortage of enforcement agents, the statute's goals will not be realized.

Mr. Chairman, I would like to submit for the record the paper as I mentioned a little while ago. In that paper, MADD endorses a dedicated source of revenue to fight drunk driving including better enforcement of underage drinking laws. We can do that with a dedicated tax, by redirecting existing taxes derived from the sale of all alcoholic beverages which, of course, includes beer. I know this is not the tax committee and I hope that you will give this idea your consideration.

Once again, I commend you, Mr. Chairman, and the other members of Congress who have fought beside us to stop impaired driving. You have our appreciation and in your future efforts we place much hope.

Thank you.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much, Ms. Kirk, for your comments. We have your complete statement and it will be made part of the record.

[The statement follows:]

STATEMENT OF MILO KIRK

Good morning, Mr. Chairman. It is a pleasure to be here this morning as president of Mothers Against Drunk Driving to share our views on drunk driving and means to combat it. MADD enjoys the support of 3.2 million Americans.

It is a particular pleasure to be before this subcommittee and you, Senator Lautenberg. You and MADD have a long history beginning with your sponsorship in 1984 of the National Minimum Drinking Age bill, or "21." You can take justified pride in the fact that thousands of young Americans are alive today because of your efforts.

The passage of 21 was a major achievement for you, for the Congress and the Federal Government and for MADD. But, we can not rest on our laurels.

1992 showed substantial progress in the fight to achieve greater safety on our Nation's highways. The number of fatalities was the lowest in 30 years. A concerted effort at the national, State and local levels to fight drunk driving played a large part in saving many lives. Yet, in 1992, 46 percent of those who died on our highways did so because someone combined drinking and driving. In addition, 1.2 million people were injured in crashes involving alcohol. Using conservative estimates, drunk driving continues to cost society some $46 billion each year in direct costs. Medical costs associated with drunk driving continue to run about $5.5 billion a year.

Since the founding of MADD in 1980, we've come a long way. The American public no longer views being drunk and driving drunk the way it did in the past. Drunk driving is no longer a laughing matter. The public now understands that drunk driving is no accident; it is a violent crime.

Mr. Chairman, as you know, drunk drivers do not discriminate. They are equal opportunity killers. They do not distinguish between rich or poor, black or white, Republican or Democrat, famous or unknown. The recent tragic death of Nancy Thurmond underscores this fact. For this tragedy to come to the family of Senator Thurmond, who had labored with MADD in the fight for justice for victims of drunk driving, is doubly tragic.

This subcommittee is to be commended, Mr. Chairman, for its dedication to the cause of fighting drunk driving. Last year, you amended the NHTSA section 410 incentive grant program to put it on a workable footing. The 410 program, as modified, is a good program. We think the States and NHTSA share this view.

The changes made to the section 410 program last year fulfilled the intent of Congress which authorized the program as part of the Intermodal Surface Transportation Efficiency Act (ISTEA). Without the amendments made last year in the appropriations bill, the 410 program would be providing a substantially reduced incentive to States to pass tougher anti-drunk driving laws. With those amendments, the 410 program is providing incentives equal to those provided in the past by the section 408 program and encouraging the passage of important laws like lower BAC levels and the use of sobriety checkpoints. As a result, in fiscal year 1993, some 17 States have qualified for 410 funding at a cost of about $22 million, according to NHTSA.

An unavoidable consequence of last year's amendments is an increase in the expenditures to cover grants under the 410 program. It is possible that the funds available to qualifying States will not be sufficient to cover all the grants for which they qualify. NHTSA's regulations specify that in this event, all grants would be reduced proportionately. If NHTSA should have to reduce grants to States due to lack of funding, we believe that the incentive nature of the program would be compromised. We hope that Congress will continue to do what it has done in the past and insure that qualifying States get the funding they qualified for.

Among MADD's objectives for this year, Mr. Chairman, are the passage in every State of administrative license revocation, the adoption nationwide of a .08 BAC level as the definition of intoxication and efforts to strengthen the enforcement of the minimum drinking age.

Administrative license revocation is now the law in 33 States and the District of Columbia. Nine states have passed .08 BAC. MADD is supportive of legislation authored by a member of this subcommittee, Senator Domenici, to increase the inducement given States to adopt .08 BAC as their definition of intoxication. There has been substantial misinformation spread around Capitol Hill about the amount of alcohol it takes to reach .08 BAC. MADD does not think that a six pack on an empty stomach is social drinking or comparable to a glass of wine with dinner. We are not prohibitionists and we think a rational discussion of what constitutes impairment will not put the alcohol industry out of business. We trust that a careful consideration of Senator Domenici's legislation will clarify many of the misguided claims made by those who have a vested interest in selling one more drink.

Mr. Chairman, the 21 law you authored has saved thousands of lives; but, we believe that with more aggressive enforcement, it could save thousands more. The studies done by NHTSA show a savings of about a thousand lives per year. The studies on enforcement by the Surgeon General's office, the Insurance Institute for Highway Safety and others show a profound lack of enforcement of 21, particularly in large cities like the District of Columbia. It took the death of a bright, promising high school senior in Fairfax County, Virginia, to activate local officials to concentrate on the purchase and selling of alcoholic beverages to underage youth in this area. MADD looks forward to the day when good policy is no longer driven by tragedy.

Mr. Chairman, the fulfillment of Congress' goal in passing the 21 bill comes down to one word—responsibility. Those who sell and advertise alcoholic beverages have to exercise responsibility and be sensitive to the impact of their messages on youth. Young people have to assess the cost of drinking and driving and exercise responsibility by finding a way to "cruise without booze," as the saying goes. No level of government can legislate good parenting. Parents who serve alcohol to teenagers falsely believing that alcohol is not to be equated with drugs are not exercising responsibility.

It used to be said that the Federal Government could not legislate morality. But, it could put the Government on the side that is moral. That is what we propose you do.

The most precious possession of young people is a drivers license. You, Mr. Chairman, have authored a law which says that States which fail to revoke the license of someone found using illegal drugs should lose highway funds. Logically, that law should be extended to America's most frequently abused drug—alcohol. Individuals under the legal drinking age of 21 in any State who drive after consuming alcohol should lose their driving privileges. States which fail to withhold driving privileges from such persons should be treated the same as under your legislation dealing with so-called "hard" drugs.

As for those who sell to underage persons, they too should lose their license—their license to sell alcoholic beverages. Encouraging the States to better track the purchase of alcoholic beverages, by methods like keg registration, would be helpful as well. But, ultimately, the enforcement of underage drinking laws is a function of resources. A State or city can have the best statute known to humankind; but, if it has a paucity of enforcement agents, the statute's goals will not be realized.

Mr. Chairman, I would like to submit for the record a paper MADD prepared on the relationship of drunk driving to health care costs. In that paper, MADD endorses a dedicated source of revenue to fight drunk driving including better enforcement of underage drinking laws. We can do that with a dedicated tax or by redirecting existing taxes derived from the sale of alcoholic beverages. While I know this is not the tax committee, I hope you will give this idea your consideration.

Once again, I commend you, Mr. Chairman, and the other members of Congress who have fought beside us to stop impaired driving. You have our appreciation and in your future efforts we place much hope. Thank you.

DEPARTMENT OF TRANSPORTATION

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

STATEMENT OF MICHAEL BROWNLEE, ASSOCIATE ADMINISTRATOR, TRAFFIC SAFETY PROGRAMS

Senator LAUTENBERG. Mr. Brownlee.

Mr. BROWNLEE. Thank you, Mr. Chairman.

I am pleased to appear today to discuss our agency's strategy for reducing alcohol-impaired driving in this country, including our special concern for reducing drinking and driving by young people.

TRAFFIC SAFETY TRENDS

Accomplishments in highway safety in the past 10 years overshadow all other periods in our history. Forty thousand people are alive today because of progress made in drunk driving since 1982; an additional 30,000 lives have been saved because of increased safety belt use; over $50 billion in direct costs were averted. The savings attributable to injury reduction more than doubles this amount of dollars saved.

Despite our success, motor vehicle crashes still account for over 90 percent of U.S. transportation deaths. Vehicle crashes remain the leading cause of personal injury, with over 5 million people injured last year alone, 500,000 of whom were hospitalized. The direct economic cost to society has reached $138 billion annually. Alcohol-related crashes account for $46 billion of this cost.

Motor vehicle crashes are a major contributor to health care costs in this country, reaching $14.4 billion per year, including $4 billion paid by Medicare and Medicaid.

In 1992, alcohol-related fatalities accounted for 46 percent of traffic deaths, which is down 2 percentage points from the 1991 level, and down from 57 percent in 1982. This single year decline saved an estimated 800 lives. Our early estimates suggest that 18,000 people died in alcohol-related crashes in 1992, compared to about 25,000 in 1982. This represents a 28-percent reduction during the past decade.

Progress with impaired young drivers was even more dramatic. In 1982, over 5,000 young persons aged 15 to 20 died as a result of alcohol-related traffic crashes. By 1992, that level had dropped to just over 3,000, a decline of about 42 percent.

STATE ALCOHOL LAWS

Progress has occurred through the combined efforts at the Federal, State, and local levels. States have enacted stronger laws to control drunk drivers. Only 17 States had age 21 laws in 1982, and all 50 have them today, as you know. Thirty-four States have passed administrative license revocation laws, compared with six in

1982. The number of States with .10 BAC laws has grown from 25 in 1982 to 38 today, and 9 other States have .08 BAC laws. And I might add, Mr. Chairman, that four States have enacted .08 this year.

FEDERAL ALCOHOL PROGRAM

Federal leadership in alcohol safety has been exerted through a variety of programs with the States—research to develop effective countermeasures, and grants to encourage laws and programs.

We work directly with police organizations to focus, for example, on the use of sobriety checkpoints and breath-alcohol testers, and to encourage them to adopt standardized field sobriety testing.

We have conducted research to test new strategies for reaching high-risk people who continue to drink and drive and also tend not to wear belts and, as such, constitute a hardcore group that must be reached in order to continue our success.

Our major public education initiatives will continue, such as the program through the Ad Council, the Friends Don't Let Friends Drive Drunk Program, and National Drunk and Drugged Driving Month.

GRANTS TO STATES

Grants to States are essential to stimulate and organize programs at the State and community level. Section 402 grants are the cornerstone of the Federal-State partnership for highway safety, and are the means for introducing innovative countermeasures, many of which were developed with funds provided by this subcommittee. States allocate one-third of their 402 Grants each year to improve alcohol safety.

Section 408 and section 410 alcohol program incentive grants have encouraged States to pass strong and effective laws, and to develop and implement innovative programs to combat impaired driving. Nineteen States qualified for section 410 grants in 1992. We expect another six to seven States this year, and as many as 30 States may qualify by the end of the next fiscal year.

SECRETARIAL SAFETY GOALS

Secretary Peña recently set goals for our programs that will guide us for the next several years. By 1997, the Secretary asked that alcohol-related fatalities be further reduced to 43 percent, down 3 percentage points from the 1992 level, and that we achieve 75 percent safety belt use, up from the 1992 level of 62 percent. The success of other countries in achieving these levels, including some of our own States, and exceeding them in some cases, gives us confidence that they are achievable. We will be working collaboratively with the States, law enforcement, MADD, and others to develop strategies to ensure success.

YOUTH ALCOHOL SAFETY

Our programs to continue success in drunk driving include special attention to young people. Youth are over-represented in alcohol-related crashes. The recent Fairfax County crash that killed a young woman following a party at a private residence is a tragic reminder of the problem. Existing laws controlling alcohol sales and drinking and driving must be effectively enforced. Those laws should be upgraded to include zero BAC tolerance for young drivers. We have worked with the States to pass these laws, and will continue to do so.

We need DWI enforcement, including enforcement of age 21 laws, and more States upgrading enforcement as a condition for receiving 410 grants. NHTSA has committed research dollars to develop new police training, and this is currently being implemented through the International Association of Chiefs of Police.

We also need better methods to deal with problem drinkers and repeat offenders. NHTSA is evaluating sanctions that separate convicted drunk drivers from their vehicles, and is also working with the National Institute on Alcohol Abuse and Alcoholism to accurately screen DWI's for drinking problems to guide referral to appropriate treatment programs.

Special populations have to be addressed, reflecting the fact that drinking drivers are not homogeneous. We are working with the Harvard Alcohol Project to use modern advertising techniques to reach people who can influence the young male bar crowd. Programs and education are being developed and directed toward cultural and ethnic groups over-represented in drinking and driving.

ALCOHOL AND BELT SAFETY

Alcohol enforcement needs to be made more efficient and effective, with increased emphasis on combining alcohol and safety belt enforcement, and other programs, and showing that DWI enforcement can reduce other crime as well.

Public awareness is essential. NHTSA will continue its successful efforts with the Ad Council, the TEAM Program with sports leagues and arenas, and 3-D Month activities. We plan to continue to assist States in conducting locally directed public information and the private sector with employer-based education programs through the Network of Employers for Traffic Safety.

Programs to improve alcohol safety and other highway safety areas we believe are one of our best buys in government. We achieve great cost savings for relatively modest investment, not to mention the significant impact on pain and suffering.

Mr. Chairman, we appreciate your continued support for our programs and your leadership in the efforts to improve alcohol safety.

Thank you.

PREPARED STATEMENTS

Senator LAUTENBERG. Thank you very much, Mr. Brownlee. We have your complete statement and it will be made part of the record along with a prepared statement from Acting Administrator Howard Smolkin.

[The statements follow:]

STATEMENT OF MICHAEL BROWNLEE

INTRODUCTION

I am pleased to appear today to discuss the National Highway Traffic Safety Administration's strategy for reducing alcohol impaired driving in this country. Although substantial progress has been made in reducing drunk driving over the past decade, drunk driving remains an enormous societal problem. I would like to highlight our program and approaches, including our special concern for reducing drinking and driving by young people.

We see progress over the entire spectrum of highway safety. Despite increased travel, traffic deaths in 1992 were the lowest in 30 years. The fatality rate dropped to the lowest point in history.

Accomplishments in highway safety in the past 10 years overshadow all other periods in our history. Forty thousand people are alive today because of progress made in drunk driving since 1982, and an additional 30,000 lives were saved by increased safety belt use. Over $50 billion in direct costs were averted. The savings attributable to injury reductions more than doubles the dollars saved.

Despite our success, motor vehicle crashes still account for over 90 percent of U.S. transportation deaths. Vehicle crashes remain the leading cause of personal injury, with over 5 million people injured last year alone, 500,000 of whom were hospitalized. The direct economic cost to society has reached $138 billion annually. Alcohol-related crashes account for $46 billion of this cost.

Motor vehicle crashes are a major contributor to health care costs in this country, reaching $14.4 billion per year, including $4 billion paid by medicare and medicaid.

OVERALL ALCOHOL SAFETY: STATUS AND PROGRESS

In 1992, alcohol-related fatalities accounted for 46 percent of traffic deaths, down from 48 percent in 1991 and 57 percent in 1982. This single-year decline saved an estimated 800 lives. Our early estimates suggest that 18,000 people died in alcohol-related crashes in 1992, compared to 25,000 in 1982. That represents a 28 percent reduction during the past decade.

Progress with impaired young drivers was even more dramatic. In 1982, 5,380 young persons ages 15–20 died as a result of alcohol-related traffic crashes. By 1992, that level had dropped to 3,105 deaths, representing a 42 percent decline.

FACTORS INFLUENCING PROGRESS

Progress has occurred through combined efforts at the Federal, State and local level.

States have enacted stronger laws to control drunk drivers. While only 17 States had age 21 laws in 1982, all 50 States plus D.C. have them now, and many States are strengthening their provisions. Thirty-four States have passed administrative license revocation laws, compared with only 6 States in 1982. The number of States with .10 BAC laws has grown from 25 in 1982 to 38 States today, and 9 other States have .08 BAC laws. Four States have enacted .08 this year (New Mexico, New Hampshire, Florida and Kansas).

Federal leadership in alcohol safety has been exerted through technical assistance to State programs, research to develop effective countermeasures, and grants to encourage stronger State laws and effective programs.

We work directly with police organizations to focus, for example, on the use of sobriety checkpoints, training to use breath-alcohol testers, and in encouraging them to adopt Standardized Field Sobriety Testing.

We have conducted research to test new strategies for reaching high-risk people who continue to drink and drive who also tend not to wear safety belts, and as such constitute a hard-core group that must be reached in order to continue our progress.

We also continue our major public education initiatives, such as publicity through the Ad Council ("Friends Don't Let Friends Drive Drunk") and National Drunk and Drugged Driving Month.

Grants to States are essential to stimulate and organize programs at the state and community level. Section 402 Grants are the cornerstone of the Federal-State partnership for highway safety, and serve as the means for introducing innovative countermeasures, many of which are developed with funds provided to NHTSA by this Subcommittee. States allocate one-third of their 402 grants each year to improve alcohol safety.

Section 408 and Section 410 alcohol program incentive grants have encouraged States to pass and enforce strong, effective drunk driving laws, and to develop and implement innovative programs to combat impaired driving. Nineteen States qualified for Section 410 grants in fiscal year 1992. Another 6 to 7 States are expected to qualify in fiscal year 1993, and as many as 30 States may qualify in fiscal year 1994.

THE SECRETARY'S GOALS

Recently, Secretary Peña set goals for our programs that will guide us for the next several years. By 1997, the Secretary asked that alcohol-related fatalities be reduced to 43 percent, down three percentage points from the 1992 level of 46 percent, and that we achieve 75 percent safety belt use, up from the 1992 level of 62 percent. The success of other countries in achieving these levels of success, and exceeding them in some cases, gives us confidence that they are achievable. We will be working collaboratively with the States, law enforcement, MADD and others to develop strategies to ensure success.

Our programs to continue success in drunk driving include special attention to young people who drink and drive. Youth are over-represented in alcohol-related crashes. The recent Fairfax County crash that killed a young woman following a party at a private residence is a tragic example of the problem. Existing laws controlling alcohol sales and drinking and driving must be effectively enforced for youth. In many cases, laws should be upgraded to include, for example, zero BAC tolerance for young drivers. We have worked with the States to pass these laws, and will continue to do so.

We need DWI enforcement, including enforcement of age 21 laws, and more States upgrading enforcement as a condition for receiving Section 410 grants. NHTSA has committed research dollars to develop new police training, and this is currently being implemented through the International Association of Chiefs of Police.

We also need better methods to deal with problem drinkers and repeat offenders. NHTSA is evaluating sanctions that separate convicted drunk drivers from their vehicle, and also working with the National Institute on Alcohol Abuse and Alcoholism to accurately screen DWIs for drinking problems to guide referral to appropriate treatment programs.

Special populations have to be addressed, reflecting the fact that drinking drivers are not a homogeneous group. We're working with the Harvard Alcohol Project to use modern advertising techniques to reach people who can influence the young male bar crowd. Programs and education are being developed and directed toward cultural and ethnic groups over-represented in drinking and driving.

Alcohol enforcement needs to be made more effective and efficient, with increased emphasis on combining alcohol and safety belt enforcement, and showing that DWI enforcement can reduce other crime as well. Police require better techniques for detecting drinking drivers, and the agency has research underway. States need uniform laws and sanctions, and need to encourage administrative license revocation, .08 BAC laws, and zero tolerance for young drivers in all States.

Prosecutors and judges must be able to respond to stepped up DWI enforcement. Improved training in handling DWI cases will be available to judges and prosecutors through the National Traffic Law Center, now established at the National District Attorneys Association. And we'll need a long-term effort on record systems to track DWI offenders through the adjudication system and to accurately record prior offenses.

Public awareness is essential. NHTSA will continue its successful efforts with the Ad Council, the TEAM Program with sports leagues and arenas, and 3–D Month activities. We plan to continue to assist States in conducting locally-directed PI&E and the private sector with employer-based education programs through the Network of Employers for Traffic Safety.

CONCLUSION

We have the opportunity to take advantage of our momentum and make further reductions in drinking and driving. This would save more lives, avert more injuries and save dollars, including taxpayer dollars. Reducing impaired driving and increasing safety belt use can substantially reduce health care costs in the United States.

Programs to improve alcohol safety and other highway safety areas are one of our best buys in government. We achieve a great cost savings for a relatively modest investment, not to mention the significant impact on pain and suffering.

NHTSA appreciates the Subcommittee's continued support and leadership in our effort to improve alcohol safety. Mr. Chairman, that concludes my statement, and I would be pleased to answer your questions.

STATEMENT OF HOWARD SMOLKIN

Mr. Chairman and Members of the Subcommittee: It is a pleasure to present the President's fiscal year 1994 budget proposal for the National Highway Traffic Safety Administration (NHTSA).

INTRODUCTION

NHTSA's mission is to help reduce crashes, deaths and injuries, and their related personal and economic costs. Our proposals for fiscal year 1994 continue these efforts and include both driver and vehicle safety initiatives. I am very pleased to report that last year's motor vehicle death toll declined to the lowest level since 1962. The estimated 39,235 fatalities reported for 1992 were 5 percent below the 41,508 deaths in 1991, and sharply lower than the 1990, figure of 44,599. The resulting fatality rate was at an historic low in 1992, falling to 1.8 deaths per 100 million vehicle miles traveled.

Nevertheless, vehicle crashes still constitute more than 90 percent of transportation-related fatalities in this country. Vehicle crashes remain the number one cause of death for persons ages 6–33 and the biggest cause of serious injuries. This is not only a staggering economic problem but a public health problem of serious dimensions. The medical cost of motor vehicle crash injuries is conservatively estimated to be $14.4 billion annually. Nearly thirty percent of these costs, over $4 billion, is paid by medicare and medicaid.

If we are able to reduce these costs, as we believe we can through improved highway safety programs, the resulting savings would be reflected directly in the form of reduced taxes to support medicare and medicaid programs. Also, because health care costs are increasing at more than twice the overall rate of inflation, by holding these costs at their current levels we can reduce annual health care costs by over $1 billion annually. Reductions in death and injury from motor vehicle crashes would not only help to contain health care costs and reduce the tax level needed to support the government health care system, but also would reduce time lost from work, lower public assistance payments for injury victims and their families, and lessen personal suffering.

In economic terms, NHTSA estimates that highway crashes produce a loss to our society of almost $138 billion annually in medical costs, lost productivity, property damage and other direct expenses. To provide perspective, $138 billion is two percent of the Gross Domestic Product.

The agency's fiscal year 1994 program is designed to start down the road toward meeting the Secretary's goals to reduce the costs of these motor vehicle-related injuries to the nation. NHTSA has developed goals for reducing these costs by establishing safety belt and drunk driving goals and making other highway safety improvements, and by achieving state-of-the-art crashworthiness and crash avoidance technology—with special emphasis on Intelligent Vehicle Highway Systems (IVHS)—in the new vehicle fleet.

NHTSA and the highway safety community have a solid record of achievement. In the last 10 years alone safety belt use has increased by 50 percent and the proportion of alcohol-related deaths are down by 19 percent using 1993 versus 1992. We strongly believe that our programs are major factors in future efforts to reduce health care costs, contain business costs, and reduce taxes.

THE BUDGET REQUEST

NHTSA's fiscal year 1994 budget request is closely tied to the priority plan and totals $307 million (in appropriations and obligation limitations). Of this total, $130 million is requested for operations and research, and an additional $177 million, including $32 million as part of the Administration's investment proposal, would fund grants to states to promote improvements in traffic safety. The total proposed appropriation represents a $37 million increase, or 14 percent, above the fiscal year 1993 enacted level, and almost all of the increase would be provided to the states within the scope of our highway safety grants program.

BUDGET HIGHLIGHTS

The $130 million requested for the Operations and Research program would be focused on meeting legislative requirements and responding to critical national traffic safety problems. The fiscal year 1994 program includes among its initiatives the following:

—Completion of final rulemaking decisions that implement the vehicle safety regulatory agenda mandated by the Intermodal Surface Transportation Efficiency

Act (ISTEA) of 1991, including requirements to improve occupant safety in all types of passenger vehicles in frontal, side impact and rollover crashes, and implement automatic braking system requirements for heavy trucks.

—Phasing in the upgrade of enforcement compliance tests to ensure that motorists receive increases in safety benefits intended from the higher performance requirements stated in new regulations, such as automatic occupant protection and upgraded side impact protection on all passenger vehicles.

—Concentrating crashworthiness research involving safety system performance and biomechanics on remaining and newly identified opportunities to reduce deaths and injuries to occupants involved in crashes. A major portion of the program would attempt to identify the vehicle and restraint system improvements that can be applied to reduce the 10,000 fatalities and 120,000 moderate-to-serious injuries, including lower extremity injuries, that are projected after the full implementation of driver and passenger air bags.

—Providing the critical safety focus to the DOT Intelligent Vehicle Highway Systems (IVHS) program by facilitating development and early deployment by industry of systems to assist drivers in avoiding crashes and leading the safety evaluation of DOT operational tests, including the Automated Highway System initiative.

—Moving the National Advanced Driving Simulator (NADS) into fabrication, test and validation phase, supported in part by $11 million in non-DOT cost sharing which includes $5.2 million from the University of Iowa, the simulator host site. The remaining $5.8 million will be secured by the University of Iowa from other sources.

—Providing a multi-faceted strategy to help states improve alcohol safety to reach our goal of 43 percent alcohol-related fatalities by 1997. Enforcement of underage drinking laws and programs to keep DWI repeat offenders off the roads would be stressed. NHTSA would focus on model community programs, training for police and courts, provisional driving licenses for youth, and public information targeted on specific high-risk groups.

—Assisting states in a follow-on campaign to the "70 percent by '92" Program, in order to achieve the agency's new national safety belt goal of 75 percent use by 1997.

—Expanding and enhancing countermeasures and underlying safety research to help police officers enforce against excessive speeds and other unsafe driving behaviors.

—Enhancing the national data collection program on motor vehicle crashes which provides the basis for vehicle regulatory decisions, highway safety countermeasure development, and responses to informational needs from manufacturers, state and local government, other Federal agencies, Congress, the media and the public.

The $177 million obligation limitation proposed for highway safety grants represents an increase of $35.4 million over the fiscal year 1993 enacted level. This funding would assist states in solving their critical highway safety problems:

—$123 million for Section 402 State and Community Highway Safety Grants to implement state and local programs to reduce highway deaths and injuries through increasing use of occupant protection devices, reducing impaired driving, increasing enforcement of traffic laws (particularly speed limits), improving emergency medical services and implementing other proven countermeasures.

—$10.5 million for Section 408 Alcohol Incentive Grants and

—$25 million for the newer Section 410 Alcohol-Impaired Driving Countermeasures.

Both of these alcohol incentive grant programs would enable the state grant recipients to devote intensive resources to enforcement, education and public information programs designed to reduce alcohol and drug-impaired driving.

—$15 million for Section 153 Safety Belt and Motorcycle Helmet Use Incentive Grants which would be awarded to qualifying states to educate the public about safety belts, child safety seats and motorcycle helmets, and to support enforcement of usage laws.

—$3.5 million for the National Driver Register to provide maintenance of the register and continue state conversion to the Problem Driver Pointer System (PDPS).

STRATEGIC PLANNING

NHTSA is committed to ensuring that its resources are used as effectively and efficiently as possible. At the end of 1992, the agency issued its third annual priority plan, *Moving America Safely, NHTSA's Activities Through 1994.* This plan provides an outline of the activities NHTSA is currently pursuing.

The agency has initiated strategic planning to enhance longer term, future policy making and resource management. Strategic planning provides a mechanism for stimulating and implementing change in the agency based on detailed analyses of possible future conditions. In a June 1992, Federal Register notice the agency solicited the public's input on the strategic planning initiative. Well over 100 organizations and citizens submitted comments in response to the notice. These comments are being reviewed and will play an important part in helping NHTSA establish future goals for highway traffic and motor vehicle safety programs, and in improving the relationship and service to the general public, state and local governments, industry, and other interested organizations.

MOTOR VEHICLE RULEMAKING

The fiscal year 1994 budget proposal of $4 million for the rulemaking program would provide funding for: Vehicle Safety Standards; the New Car Assessment Program (NCAP), Fuel Economy, Theft and other Consumer Programs.

NHTSA issued 93 rulemaking notices in 1992, which is the third highest number in the agency's history. This is 37 percent higher than the average of 68 notices for the period 1976–1989. ISTEA required the agency to initiate rulemakings in a number of areas. The agency met the Act's requirements by issuing advanced notices of proposed rulemakings (ANPRM's) on: rollover protection; dynamic side impact testing of light trucks, child booster seats; Automatic braking system (ABS) requirements for heavy duty trucks, buses, and trailers; and seat belt design. The agency also published NPRM's to mandate full-front air bags and to reduce head injuries. Rulemaking on ABS for passenger cars is scheduled to be initiated in 1993 as required by ISTEA.

In addition, during 1992, final rules were published on: automatic brake adjusters for heavy trucks; heavy truck conspicuity; upgrades for school bus mirrors and emergency exits; and protection against siphoning of vehicles powered by methanol. During the first quarter of 1993, the agency published final rules to upgrade seating in school buses used by handicapped students. NHTSA also has sought public comment on safety issues relating to the use of alternative fuels through the publication of proposals addressing compressed natural gas (CNG) fueled-vehicles and electric vehicles. In addition, rulemaking has been initiated to provide assurance that wheelchair lifts operate safely; to upgrade the agency's school bus joint strength standard; to reinstate stopping distance requirements for heavy trucks and buses; and to provide rear underride protection guards for truck trailers. Final rules have recently been issued that require registration of child safety seats and for fuel economy standards for light trucks for model year 1995.

One of the conclusions of the April 1992, National Academy of Sciences (NAS) study of the potential to improve fuel economy was that government agencies have little information on the costs and performance of fuel economy technologies and on developments in the automotive industry in general. NHTSA is requesting approximately $1 million for the fuel economy program to respond to these concerns. The programs would provide crucial information to aid in decisions on the future of the CAFE program.

NEW CAR ASSESSMENT PROGRAM (NCAP)

NCAP funding is proposed at $2.5 million and would provide funding to assess the frontal crashworthiness of 39 vehicles. More than 400 vehicles have been tested in NCAP since 1979. Vehicles are tested by being crashed at 35 mph into a rigid barrier. The resulting data measuring the potential safety performance of the vehicles is then widely disseminated. These data are provided to the media and consumers through regular press releases and NHTSA Hotline calls. The model year 1993 program, which tested 37 vehicles, proceeded at a record pace which afforded potential car purchasers more opportunity to review this information prior to making a selection. The agency also plans to initiate a side impact NCAP in fiscal year 1994, testing 15 vehicles. Funding of $600 thousand would be used to conduct these tests.

In an effort to improve the presentation, distribution and usefulness of NCAP data, NHTSA is conducting consumer and media surveys on the subject. Reports resulting from these studies will be provided to the Subcommittee in the fall of 1993.

VEHICLE SAFETY ENFORCEMENT ACTIVITIES

We are requesting $8.5 million for the Enforcement Program to provide funding for Vehicle Safety Compliance, Defect and Odometer Fraud investigations. This represents an increase of $548 thousand in Vehicle Compliance and $875 thousand in Defects Investigation compared to the fiscal year 1993 enacted level. Funding for Odometer Fraud remains at $100 thousand. NHTSA's Enforcement Program has the vital responsibility of making certain that the public enjoys the safety benefits of the Federal Motor Vehicle Safety Standards (FMVSS). Enforcement actions ensure that motor vehicles and equipment are tested to the performance requirements established in the safety standards and that potential safety-related defects are investigated. When noncompliances or defects are found, the agency moves toward obtaining a recall.

During 1992, there were 15 recall campaigns involving 1.8 million vehicles recalled for safety belt defects. In addition, 2.6 million child safety seats were recalled in 1992. The agency's work to remove unsafe vehicles from the nation's roads continues to be a critical component of the efforts to reduce the fatality rate. In 1992, a total of 156 safety defect recall campaigns involving 9 million vehicles were conducted. Furthermore, there were 31 recall campaigns involving another 1.1 million vehicles for noncompliance with safety standards. Of the total 10.1 million vehicles recalled, 69 percent, or 7 million, were influenced by NHTSA's enforcement investigations.

In 1992, 88 percent of the defect investigations were initiated based on Hotline calls. Last year more than 563,000 consumer calls were processed by the NHTSA Hotline. We are seeking an additional $325 thousand to improve the Hotline and $550 thousand to increase support for our defect investigations. The Hotline is NHTSA's principal conduit to the motoring public. The additional funding would be used to increase our ability to handle more consumer calls and further enhance our partnership with consumers. The $550 thousand would provide resources for more testing to support our defect investigations. The increase in testing capacity would allow us to more quickly determine if a defect exists and whether a recall is warranted. This would assist highway safety by expeditiously identifying and removing unsafe vehicles from the road.

In 1994, a significant addition to NHTSA's safety standards compliance program will be the testing of vehicles for compliance to Standard No. 214, Side Impact Protection. This standard becomes effective for 10 percent of a manufacturer's passenger fleet on September 1, 1993. Additional phase-in of this requirement would occur in subsequent years. We also are requesting an additional $548 thousand for Vehicle Safety Compliance to conduct 15 crash tests to assess compliance with this new safety standard. These tests would identify any noncomplying vehicles and remove them from the road.

NHTSA's odometer fraud program was responsible for 20 investigations and obtained 16 criminal convictions in 1992. Since 1980, 152 convictions have been obtained in 153 cases. The Truth in Mileage Act of 1986 requires that sellers disclose accurate mileage readings on vehicle titles. States conduct investigations, recover funds for defrauded consumers, and conduct public awareness programs. Since the inception of the program which established contracts to states, those states have: conducted 1,680 investigations; collected more than $387 thousand for defrauded consumers; and presented seven statewide consumer awareness programs.

HIGHWAY SAFETY ACTIVITIES

The Highway Safety Program budget is proposed at $24.8 million and would provide critical funding for: Alcohol, Drug and State Programs; National Occupant Protection Program; Enforcement and Emergency Services; Highway Safety Research; and State Motor Vehicle Services. The primary objective of NHTSA's highway safety program is to reduce crashes, prevent injuries and save lives, by improving human behavior. Numerous crash causation studies have shown that driver-related factors account for 90 percent of crashes. An effective highway safety program is key to reducing both crashes and costs.

ALCOHOL AND DRUGS

Secretary Peña has focused the agency's attention on a four-year traffic safety program to reduce alcohol-related fatalities to 43 percent and to increase safety belt use to 75 percent. These two programs alone would save nearly 4,000 additional lives per year when the goals are met and save nearly $3 billion in out-of-pocket costs due to fatality reductions alone. The agency is currently investigating how to address these goals within a single, national emphasis program. The fiscal year 1994 budget proposal for the alcohol and drug portion of this integrated program is $10.5 million. This funding would enable the agency to work through states, communities, employers, and national organizations to: enact key impaired driving legislation; publicize and enforce these laws vigorously to apply swift and sure sanctions to offenders; and educate the public on drinking and driving issues. This effort would combine effective anti-DWI and safety belt use efforts wherever possible to reach these two goals. It is expected that the program would focus on quality public information and education programs, more effective laws, and stricter enforcement efforts. NHTSA would work with the states and major highway safety organizations to develop this multi-year effort which is expected to be an agency centerpiece for the next four years.

NHTSA encourages states to enact administrative license revocation laws, make it illegal to drive with a blood alcohol concentration level of .08, and establish zero alcohol tolerance laws for persons under age 21. All three laws are part of the agency's Priority Plan and also are criteria in the Section 410 state alcohol incentive grant program. Moreover, special emphasis would be devoted to young drivers. The agency concurs with the National Transportation Safety Board's recent findings that increased attention to drinking and driving by young drivers would reduce casualties substantially.

NHTSA plans to continue its alcohol safety public information activities with the Ad Council. Specific target populations would be selected by using methods developed in the agency's research program. The agency also anticipates continuing with public and private sector colleagues in the Techniques for Effective Alcohol Management (TEAM) coalition—Major League Baseball, the National Basketball League, the National Football League, the National Hockey League, the National Collegiate Athletic Association, CBS, the National Association of Broadcasters, and others—to produce and broadcast impaired driving and underage alcohol use messages directed at high school and college youth as well as older sports fans.

The Drug Evaluation and Classification (DEC) program is moving rapidly to full institutionalization. Experienced DEC states are beginning to assume management of their own DEC activities. NHTSA's fiscal year 1994 budget proposal for DEC ($4 million) would fully implement the agency's plan to regionalize the delivery of DEC training. The agency would also assist the states by providing the necessary laboratory support for the training. The agency will maintain national public information efforts to educate the public on the dangers of driving while impaired by drugs. Most importantly, NHTSA would accelerate research to streamline and improve the DEC evaluation and shorten the training needed to qualify a DEC officer.

OCCUPANT CRASH PROTECTION

In the area of occupant protection, the program request totals $5.8 million that would be used to continue with the agency's primary strategy for increasing seat belt usage. That strategy is to encourage states to enact and enforce laws requiring safety belt and child safety seat usage. To date, 45 states, the District of Columbia, Puerto Rico and the U.S. Territories have enacted such laws. All 50 states and the Territories have enacted child passenger protection laws. As a result, seat belt usage increased from about 14 percent to nearly 50 percent from 1980 to 1990. During 1991–1992, NHTSA implemented a national program to encourage states and localities to conduct combined seat belt enforcement and public education programs. Because of these efforts and continued enforcement and media activities, the national safety belt usage rate reached 62 percent at the end of 1992, with several states reporting belt use exceeding 70 percent.

To respond to the Secretary's new traffic safety program goals to reduce alcohol-related fatalities, enforcement and public awareness activities would focus on both impaired driving and occupant protection. These activities include: providing support for states to upgrade their safety belt and child passenger protection laws; efforts to increase the proper use of child passenger protection devices; and educating the public on how air bags work in conjunction with safety belts.

SPEED ENFORCEMENT

For the critical area of speed enforcement we are requesting $1.013 million. These funds would be used to emphasize several major program areas: assisting national enforcement efforts including, providing advanced enforcement technologies, public information and education, demonstration projects, research and technical assistance. Research on the problem of speed would focus on conducting indepth crash investigations to determine the degree to which speed contributes to crash causation, and to determine under what circumstances (i.e., when and where) speeding is most likely to increase crash risk. The research program on speed would help the agency to better understand the problem and how to attack it. A nationwide driver survey would also be initiated to assess driver perceptions, attitudes, and motivations regarding speed. Subsequent research would use this information to develop effective and more focused enforcement programs. Speed enforcement remains a high priority issue and it is estimated that speed-related crashes cost society in excess of $10 billion per year. The agency is required by ISTEA to develop two significant rules pertinent to speed: to make speed a priority highway safety program; and to develop a compliance formula and monitoring plan for national maximum speed limit highways. In 1990, approximately 34 percent of all fatal crashes were speed related. Of all crashes reported to the police, about 12 percent cite speed as a contributing factor.

EMERGENCY MEDICAL SERVICES

The agency is seeking $978 thousand for the Emergency Medical Services (EMS) program. The efforts of the EMS program, which contributes to reducing the number of fatalities and serious injuries that result from highway crashes, directly affect the cost of health care. It is essential to continue assisting states in developing and enhancing comprehensive and integrated EMS and trauma systems, given that such systems can reduce preventable mortality by 20–30 percent and return over 95 percent of the serious traumatically-injured patients to normal, productive lives. These funds would enable NHTSA to continue to facilitate technical assessments of state EMS systems and provide technical assistance to states which focus on specific problems identified through these assessments, including activities that promote public information and education and the development of trauma systems. These funds also would permit NHTSA to continue its curriculum development efforts and its activities which focus on improving EMS in rural areas and pay particular attention to target populations, including Native Americans.

MOTORCYCLE SAFETY

Motorcycle riding continues to be one of this nation's most hazardous forms of transportation. Proper licensing and use of motorcycle helmets are two areas of program emphasis. A contract program level of $350 thousand is required to address the safety problems inherent in this area. The agency's strategy is to urge all states to require a separate motorcycle license endorsement; assist the police in their enforcement of licensing requirements; publicize licensing requirements to all motorcyclists; and assist states in implementing their licensing programs. These strategies would be accomplished through a national campaign that is scheduled to begin in late fiscal year 1993 and continue through fiscal year 1994. All of the major motorcycle safety organizations, motor vehicle and police departments, insurance companies, and motorcycle enthusiast organizations are participating in this campaign.

PEDESTRIAN AND BICYCLE SAFETY

Crashes involving pedestrians make up about 15 percent of each year's traffic fatality totals. Recent rulemaking in the Section 402 formula grant program added pedestrian and bicycle safety as National Priority program areas. NHTSA proposes funding of $428 thousand to implement major initiatives in pedestrian safety which would be accomplished through a joint program with the Federal Highway Administration (FHWA). The goal of this program is to encourage the states and communities to incorporate research-based pedestrian safety countermeasures within existing community traffic safety programs.

Recent data indicate that 75 percent of bicycle crashes result in head injuries. The use of bicycle helmets can mitigate up to 85 percent of those head injuries. The fiscal year 1994 program would focus on a new national initiative to promote the use of bicycle helmets. The agency also plans to promote educational material for distribution through a coalition of bicycle manufacturers, associations, user groups, dealers and injury prevention organizations.

YOUNGER AND OLDER DRIVERS

In February 1993, the agency sent a report to the Subcommittee that described in detail the agency's research agenda for "Addressing the Safety Issues Related to Younger and Older Drivers." NHTSA submitted a second report in March 1993 that provided milestones for the older driver research program. The detailed report revealed that although drivers in these two age groups are over-represented in fatalities per mile driven, the number of crashes and fatalities involving younger drivers far outnumber those of older drivers. Current research on younger drivers focuses on understanding and controlling their propensity for engaging in high-risk behaviors. NHTSA's research on older drivers would require $450 thousand to focus on four major areas: to provide assistance to the majority of older persons who already limit their driving to accommodate changing capacities; to develop procedures to identify drivers who do not self-limit their driving when conditions warrant and to regulate their driving under those circumstances; to improve the crashworthiness of vehicles to accommodate occupant frailties in drivers over the age of 75; and to employ advanced vehicle technologies to compensate for the declining capabilities of older drivers.

TRAFFIC RECORDS

ISTEA established several traffic data and reporting requirements that would have a significant impact on state records systems. These include the Safety Management System requirement for linking the data systems of all agencies within a state that are involved in highway safety, and the requirement for uniform reporting of traffic fatalities. NHTSA is planning to offer implementation grants through each of our regions to assist them in determining the upgrades needed to meet these new requirements and for adopting the Critical Automated Data Reporting Elements (CADRE) data elements.

RESEARCH ACTIVITIES

The agency seeks $40.6 million for the Research and Analysis Program to maintain and further enhance our scientific basis for future reductions in motor vehicle crash losses. This research component consists of broadly-based research and development, data acquisition, and analysis programs. These activities are designed to support motor vehicle areas that show the greatest promise for avoiding crashes, reducing injuries, and saving lives.

NATIONAL ADVANCED DRIVING SIMULATOR (NADS)

Our National Advanced Driving Simulator continues to progress toward construction. We are requesting $2 million in fiscal year 1994 for fabrication, test; and validation activities. The NADS would be an important tool for furthering NHTSA's understanding of human factors in traffic safety and for supporting the development and evaluation of IVHS. The NADS also would permit the agency to safely conduct the necessary evaluations of how drivers react when confronted with a hazardous situation. Because human error is a major contributing factor in over 90 percent of today's crashes, the NADS is expected to make a significant contribution to highway safety.

The NADS would exploit America's leadership in advanced simulation technologies from the nation's military and space programs. NHTSA and the University of Iowa signed a cooperative agreement on March 15, 1993, that defines their respective responsibilities during the design, development, construction, and operation of the NADS. The University of Iowa is now in a position to secure the $5.8 million in additional funding needed to satisfy the one-third non-DOT contribution requirement. The Request for Proposals for the NADS design concept studies is currently available for industry comment. The agency expects that a contract will be awarded this year.

INTELLIGENT VEHICLE HIGHWAY SYSTEMS (IVHS)

NHTSA's fiscal year 1994 budget proposal for IVHS is $7.5 million. This funding would support the agency's efforts to foster the development and early deployment of cost-effective, user-friendly collision avoidance products. Collision avoidance IVHS applications would assist drivers to overcome lapses in their recognition and performance that cause up to 90 percent of all collisions. Collision avoidance IVHS applications have the best potential the agency has ever identified to reduce the number of collisions occurring on the nation's highways. Preliminary estimates of the effectiveness of some collision avoidance IVHS systems are as high as 50 percent.

NHTSA's program provides the critical safety focus to the DOT IVHS program activities. Agency R&D, working cooperatively with the private sector, would facilitate development and early deployment by industry of systems to assist drivers in avoiding collisions and would lead the safety evaluations of the DOT operational tests. The agency's near-term focus is on systems that are self-contained on the vehicle. Enhanced capabilities that may be possible with highway communication networks and other highway IVHS infrastructure would be explored in future phases of the program. In June 1992, the agency submitted the five-year IVHS safety research plan requested by the Subcommittee. The research plan outlines the strategies, activities, and milestones for providing vehicle engineering and human factors research. This research is necessary to achieve the potential safety benefits promised by IVHS.

Also, a principal component of the agency's program is the development of engineering and human factors performance guidelines. The guidelines would serve as product design targets for the private sector and provide the agency with the basis for conducting safety impact evaluations. FHWA's budget request includes an additional $9 million, which is $7 million above the $2 million provided in fiscal year 1993, to ensure that NHTSA vehicle and system safety projects critical to the success of FHWA operational tests and the automated highway system initiative are adequately supported.

HEAVY VEHICLES

Fiscal year 1994 funding of $1.1 million is proposed for heavy vehicle activities to allow the agency to continue programs to address critical truck safety programs. Each year nearly 10 percent of vehicle-related fatalities occur in crashes involving heavy trucks. The research in this program area seeks to involve the industry in developing cost-effective solutions to safety problems. With standardized test procedures developed under cooperative government-industry work, the traction properties of typical truck tires would be defined. This is essential so that the contribution that tires make to overall dynamic stability performance can be assessed. To reduce the number of truck occupants killed each year in crashes, the agency would continue cooperative efforts to assess interior truck components and cab structures.

SAFETY SYSTEMS

The $7.1 million request for vehicle and component development would allow the agency to continue its progress to establish a technical basis for formulation of crashworthiness policies and regulations. It also provides development of occupant protection technologies to prevent fatalities and injuries in vehicle crashes. There has been much progress made in improving vehicle structures and occupant restraint systems to reduce the number of deaths and injuries from vehicle crashes.

Nevertheless, the agency's continuing study of the data it collects from crashes occurring on the nation's roads allows verification of continuing opportunities and identification of new problems. Frontal, side, and rollover crashes still account for a large number of deaths and injuries to occupants of passenger cars and light trucks and vans. For example, after the full implementation of driver and passenger air bags, there is still the possibility of 10,000 fatalities and 120,000 moderate-to-serious injuries in crashes. Crash injuries result from occupant impacts with the various vehicle interior surfaces and from ejections through door and window areas.

The crashworthiness safety system research program includes projects on side impact protection, rollover protection, ejection protection, and restraint system improvement, including child restraints. A major thrust of the program is to study the feasibility of upgrading frontal crash protection. This program would address fatalities and injuries, including lower extremity injuries, which would occur in frontal crashes even after full implementation of driver and passenger air bags.

BIOMECHANICS

The funding request for Biomechanics is $5 million which would maintain the current level of research and development in this area. This research is considered the cornerstone upon which many of NHTSA's safety initiatives and regulations are based. In order to study and require improved performance of vehicles in crashes, it is necessary to understand the injury mechanisms to humans in crashes and human injury tolerance levels. It is also necessary to be able to measure the injury related mechanical parameters in simulated crashes with the use of human surrogates.

Biomechanics research would aggressively pursue efforts in four major areas; (a) detailed, hospital based, crash and outcome studies documenting and relating crash circumstances with injuries, (b) experimental efforts seeking to understand the mechanisms of injury in vital areas of the body such as the head, neck, and torso, (c) mathematical efforts to model the human in crash situations and predict both the extent and severity of expected injuries, and (d) design efforts seeking to develop new dummy components that more accurately mimic the human in a crash and are able to better predict both the extent and severity of expected injuries. All of these efforts are applying the theories, methods, and practices of engineering to the study, quantification, control, and prevention of injuries in the automotive crash environment.

NATIONAL CENTER FOR STATISTICS AND ANALYSIS (NCSA)

The $17.9 million requested for NCSA would continue large scale, automated databases to support problem identification, program planning and program evaluation. The agency uses this information to support motor vehicle research and development and highway safety programs and policy. These data also are the primary source of information on motor vehicle and highway safety for other DOT modes, especially FHWA. The automobile manufacturing and insurance industries, state and local governments, and consumers all benefit from the data produced by NHTSA's NCSA program.

The NCSA data sets are continually being revised to meet changing highway safety needs. New information is being collected by the Fatal Accident Reporting System (FARS) and National Accident Sampling System (NASS) data systems to support increased agency activities in crash avoidance especially related to IVHS activities. The NASS Crashworthiness System has been reconfigured to be more efficient in collecting crash information by eliminating a layer of contractor management. Plans are being developed to collect information on pedestrian involved crashes and speed related crashes to support agency programs in these areas. Work with the states to improve their crash data systems with activities like the Critical Automated Data Reporting Elements (CADRE) program is moving ahead as planned. Initial results of the Crash Outcome Data Evaluation System (CODES) program that was authorized by ISTEA are very promising. Successful linkage of crash and other traffic records systems with emergency treatment and hospital based data is of critical importance to the future of highway safety.

HIGHWAY TRAFFIC SAFETY GRANTS

The proposed obligation limitation for the grant program is $177 million, including $32 million as part of the Administration's investment proposals, which is an increase of $35 million over the fiscal year 1993 enacted level.

The budget proposes $123 million for NHTSA's largest grant program; the Section 402 state and community grant program. This represents an increase of $8 million over the level provided for fiscal year 1993. The goal of the Section 402 program is to provide Federal leadership, encouragement and technical assistance to all states in their efforts to develop and implement the most effective highway safety programs in their jurisdictions. To encourage and acknowledge especially noteworthy state activities, NHTSA has initiated the "Administrator's Highway Safety Programs of Excellence" awards to recognize and document the truly outstanding highway safety accomplishments in states and communities that have been made possible through the Section 402 program. The fourteen first-year winners received their, and we have documented these projects in a report which has been delivered to the subcommittee.

The budget also proposes funding for several very important incentive grant programs. An obligation level of $15 million is proposed for the Section 153 Safety Belt and Motorcycle Helmet Use Incentive Grant Program. This program has been instrumental in promoting a significant amount of safety belt and motorcycle helmet legislative activity in the states. Since the enactment of Section 153, 17 safety belt or motorcycle helmet bills were introduced in fiscal year 1992 and 22 bills have been introduced thus far in fiscal year 1993. Four states have enacted new safety belt or motorcycle helmet laws since the inception of the program: safety belt laws in Nebraska, North Dakota, Vermont and West Virginia and a motorcycle helmet law in Maryland. In addition, both Ohio and Connecticut amended their existing safety belt laws to remove unacceptable air bag exemptions.

Obligation levels of $25 million for Section 410 and $10.5 million for Section 408 Alcohol Safety Incentive Grants are proposed. These incentive grants have been very influential in encouraging states to pass strong legislation to deal with their drunk and drugged-driving problems. Since the beginning of 1992, four states have passed administrative license revocation (ALR) laws, four states have passed .08 BAC laws, and four states have passed zero tolerance laws for drivers under age 21. These measures are all key criteria for qualifying for NHTSA's alcohol incentive grants.

As a result of a significant effort during fiscal year 1992 the agency was able to award Section 153 grants to nineteen states (including the District of Columbia and Puerto Rico), and to award Section 410 grants to seventeen states under the "new" program as well as to two additional states under the "old 410" program. To continue progress made under these programs, NHTSA proposes to increase Section 410 funding during fiscal year 1994. Funding for the older Section 408 Alcohol Safety Incentive Grant Program would decline slightly from fiscal year 1993 to fiscal year 1994, while most of the remaining authorized funding level would be used.

NATIONAL DRIVER REGISTER

The fiscal year 1994 funding request for the National Driver Register (NDR) is $3.5 million. All 50 states and the District of Columbia have formally indicated their intent to participate in the new Problem Driver Pointer System (PDPS). The agency is in the process of awarding grants to each state to assist in their conversion operation. All NDR system programming changes will be completed and the first states will begin testing in June. NHTSA expects to have 12 to 15 states operational by the end of 1993 and all states fully operational by April 1995.

This concludes NHTSA's formal statement for the record.

ALCOHOL-IMPAIRED DRIVER POPULATION

Senator LAUTENBERG. Mr. Brownlee, I am puzzled by one thing. We say that 46 percent of the fatalities are alcohol-related. That does not sound like it is disproportionately high in the abstract, because we do not know how many people there are who have drunk before they get on the highway. What percentage of the fatal accidents take place among what size population?

Am I clear?

In other words, if we say only 46 percent of the highway fatalities are alcohol-related, and if you had the same size population for those who drank and those who did not, then you would say that the impaired drivers are more likely to have a fatal accident or be involved in an accident than those who did not drink.

Mr. ARENA. I think I understand your question, Mr. Chairman.

Senator LAUTENBERG. What percentage of the drivers out there have had some alcohol involvement before an accident took place? Is it 10 percent of the total population, with 46 percent of the fatalities? Or is it 46 percent of the population? And obviously it is not.

Mr. ARENA. The drug and alcohol treatment folks will say that, on average, 10 to 12 percent of your population has some type of a substance problem, and once again, alcohol becomes the drug/beverage of choice. If that is true, and we have 5.5 million drivers in New Jersey, that would mean we have about one-half of a million that have some type of a substance problem.

If in fact the police are arresting 48,000 drunk drivers a year and still, one out of every five fatalities involves a drunk driver, not alcohol-impaired, but drunk, these numbers tell us something that is very, very troubling. With 61 billion miles traveled, again, in New Jersey, and 20 percent of those killed in those accidents were drunk, again, those are troubling numbers.

ALCOHOL-RELATED FATAL CRASHES

Senator LAUTENBERG. How many fatal accidents are there in New Jersey each year?

Mr. ARENA. 765, and 154 involve drunk drivers, either as the deceased or the survivor.

Senator LAUTENBERG. Roughly two people a day die from an automobile crash.

Mr. ARENA. Correct. Yes, sir; and one every other day dies from drunk driving.

The BAC levels, the blood alcohol concentration levels, become even more troubling. You heard Surgeon General Novello describe what is a casual and a social drinker as compared to what is a problem drinker. And in our assessment, the intoxicated driver resource assessment, if someone has a BAC of .16, they are almost regarded as a problem drinker. You need to work real hard to get up to a .16. Yet, the average in fatal accidents is .16 or .17 BAC. If .16 or .17 is the average, we have got BAC's in the .20's and .30's which are truly unbelievable—.40 or .45 is medically death from alcohol poisoning. We have recorded drivers over that level.

BENEFITS OF SECRETARY'S ALCOHOL GOAL

Senator LAUTENBERG. Mr. Brownlee, in your statement you note that Secretary Peña has asked that alcohol-related fatalities be reduced by a substantial percentage, 43 percent by 1997, and that is down three points from the 1993 level. Given the success that we have seen by States that revoke licenses of underage drunk drivers, what might we expect if a policy were enacted nationwide that, by itself, reduced the frequency of drunk driving fatalities 3 percentage points? What kind of numbers might result?

Mr. BROWNLEE. Each of those percentage point reductions results in about 400 lives saved. So if we reduced alcohol-related fatalities by 3 percentage points by 1997, that would equate to about 1,200 lives saved each year for those kinds of gains.

I might also point out that there is a substantial effect on injuries that go along with this as well. In fact, our computations are that there are also about 60 injuries avoided for every fatal accident reduced by our drunk driving programs.

YOUNG DRIVER LICENSE REVOCATION

Senator LAUTENBERG. Does your research on remedies to underage drunk driving substantiate the claims of other groups that license revocation of an underage drunk driver is the most effective step a State can take to minimize the frequency of underage drunk driving?

Mr. BROWNLEE. Yes; we believe that losing one's license is a very effective measure to reducing not only drunk driving, but other highway safety behaviors as well. The national statistics that we have accumulated on administrative license revocation, indicate that there is about a 6-percent drop in alcohol-related fatalities in those States that have had ALR. Other groups have done research which indicates it may be even higher.

When ALR is coupled with programs that severely limit the BAC's tolerated in young people, like zero tolerance, for example, we believe those savings are even greater. We have recently completed some analysis, for example, in the State of Maryland, which went to .02, including a provision that violators of .02 would lose their license. We saw some dramatic decreases in the incidence of alcohol-related crashes—about 11 percent statewide, and an even greater percentage reduction in those counties that had an aggressive education program that went along with .02 BAC limitation.

We believe that there are a number of remedies that can be effective in reducing underage drinking and driving, and certainly the loss of a license and low BAC's are among the most important.

LOWER BAC BENEFITS

Senator LAUTENBERG. The lowered BAC's, do you have any specific data on the decrease in drunk driving among underage people in the States that have dropped to zero BAC? Do you have any specific information?

Mr. BROWNLEE. Yes; and I think we need to do more on this, certainly. There are a number of States that have now gone to zero tolerance or effective zero tolerances at very low BAC's. I would again point to the Maryland data, which I think are the best data that exist at this point on the effect of going to .02 or lower for underage drivers, when accompanied by aggressive enforcement and public information that goes along with it. I think all of these components have to go together.

ZERO BAC LIMIT

Senator LAUTENBERG. But as a stand-alone thing, if we drop the blood alcohol level to zero, is there any evidence that tells us approximately what will happen to the number of fatalities and auto-related crashes?

Mr. BROWNLEE. Not in isolation from all other things that might go on in a program, Mr. Chairman. I think that is an important point, though, to emphasize again—that changes in laws, in and of themselves, are not effective unless they are accompanied by other things to help enforce them.

Senator LAUTENBERG. Is zero BAC a target worth shooting for?

Mr. BROWNLEE. Mr. Chairman, zero tolerance for alcohol in underage drivers is the appropriate public policy. There are some practical issues associated with enforcement at very low levels that indicate to many States that .01 or .02 is appropriate. But zero tolerance is the effective public policy.

Senator LAUTENBERG. Do you agree, Ms. Kirk?

Ms. KIRK. Yes; we definitely agree.

Senator LAUTENBERG. There are a number of obstacles along the way to get something like that enacted into law. And it is not really the young people who are fighting it. It is often parents who are saying, "Oh, let the kids have a little fun."

Certainly, the liquor industry and the hospitality industry, it is fair to say, as well as other groups who are not specified might say, "You know, I think Dr. Novello said kids will be kids and you have to allow them some latitude."

But that does not work when someone is handed terrible news that a neighbor, friend, or relative has been killed or is permanently injured.

One of the great things that MADD does is to keep on reminding us that the lack of action results in inexcusable results. So we just have to keep on fighting it.

ADMINISTRATIVE LICENSE REVOCATION

Ms. Kirk, the threat of losing a license has had a significant impact in those States in which this penalty is systematically levied against drunk drivers. Do you and your organization support that administrative revocation?

Ms. KIRK. We fully support that. Of course, in concurrence with passing a .00 tolerance or a zero tolerance in the States also, it has to go hand in hand.

Senator LAUTENBERG. In terms of revocation or suspension, do you have an opinion on how long that should last? Should it be 6 months? Does it matter whether it is 6 months or 3 years?

Ms. KIRK. Well, I think that we should definitely start with a period of approximately 6 months. And for each infraction, the sanction should be more progressive.

LICENSE REVOCATION BENEFITS

Senator LAUTENBERG. Are there any statistics, Mr. Brownlee, that you could point to, that tell us that 6 months has a certain influence and that a longer time period has an even greater influence?

Mr. BROWNLEE. I am sorry, we do not have those statistics. And those would be certainly useful to generate. The number of States that revoke licenses at this point is growing and we may have the basis for collecting that information.

I would like to mention one other thing, Mr. Chairman. A number of States have experimented with a generalized system of provisional licensing for young people, where a young person has to demonstrate a clean driving record and if not, then license revocation action may be taken.

Those States that have had those systems have also demonstrated some significant decreases in crashes by young people. Several States have done so in a very persuasive way.

DUPLICATING NEW JERSEY SUCCESS

Senator LAUTENBERG. Mr. Arena, can some of the successes that we have enjoyed in New Jersey be duplicated in other States? And if not, why not?

Mr. ARENA. I believe they can, Mr. Chairman. But I think that the way to duplicate those is to understand how a comprehensive program works together. Mr. Brownlee said it very well, that any one sanction standing alone really is not that effective.

And I would also say that with respect to drunken driving, you would have to strike a balance between the severity of penalty and the number of cases in which those penalties are imposed. And that basically is one of the problems around the country.

As the penalties get more severe, it is unlikely that the conviction rate will be as high as it is in New Jersey at a municipal court level. So there needs to be a balance between that license revocation and certainly the length of time, coupled with education prior and assessment and treatment of the root cause of the problem afterwards.

OBSTACLES TO ALCOHOL SAFETY

Senator LAUTENBERG. What do you think your colleagues in your association deem as the biggest obstacle in attacking the problem of underage drinking?

Mr. ARENA. Mr. Chairman, it probably would be the laundry list of priority areas that have to be dealt with within the constraints of the resources that they are dealing with.

In many cases, educational programs are not funded as the first step of any underage drunk driving program. And having to jockey resources from program to program, if there is a prescriptive counter measure to a program, many States may just do what they minimally have to do without complying with the spirit of what it is we are trying to do by building a comprehensive program.

INCENTIVES VERSUS SANCTIONS

Senator LAUTENBERG. You recommend a combination of different measures to make the difference. And there is a debate between sanctions and incentives.

There is also the question about when the Federal Government becomes a obstruction to management because of State's rights resistance.

Frankly, I think that whatever gains you make, even if they are small, are highly significant. One life saved, 10 lives saved, 20 lives saved. The numbers may be small, but there cannot be a statistical analysis, in my view.

Some say that if you do not save *x* number, then why bother? To me, if you save one, it is worth the bother. The problem is you cannot always get the public's support if there is a single incident somewhere.

But I would ask this—and I would welcome your response—What right does any State have to permit a killing field to exist that endangers those outside its borders? If State *x* is not particularly strict about drunk driving, and someone from New Jersey is passing through, and gets run down by an underage drunk driver, I do not think that we can simply allow States to make such decisions independently. Interstate traffic, after all, is a significant part of the travel done on highways.

So while I buy into the notion that the more we can do comprehensively, the better off we are, I still must tell you that I support a single action if that is all that we can do. And if a stick does the job in saving a life or a paralyzing injury, I support it wholeheartedly.

Do you think that sanctioning States is more effective or less effective than getting the States the right tools to act on this?

Mr. ARENA. I believe that sanctions have a part in the process, Mr. Chairman. But first, certainly education and a performance-based incentive. Second, redirection to encourage that type of activity. And finally, if someone is not getting the message, then sanctions would be appropriate.

FEDERAL SAFETY MANDATES

Senator LAUTENBERG. Do you have a question as to whether the Federal Government has the right to mandate the safety rules on its highways?

Mr. ARENA. I think that the Federal Government must play a critical part in setting national policy. Some of the issues are the variation in the age at which young drivers are licensed. It is 14 in some States, 15—in New Jersey it happens to be 17. And we have appreciated an 85-percent reduction in underage drunk driving accidents.

But clearly, when you mix the young, inexperienced driver with easily accessible alcohol, you have got a serious problem. And that is what the statistics bear out. So I think that the national, that this committee as well as Federal, have to take an active part in setting national policy.

ELIGIBLE STATE SUCCESS

Senator LAUTENBERG. Have you noticed that the States that have been most successful at qualifying for Federal incentive grants have also demonstrated the greatest success in lowering drunk driving fatalities? Do the two necessarily correspond?

Mr. ARENA. No; they are not, Mr. Chairman. The statistical presentation that I presented as part of my formal testimony, you will note that New Jersey, New Mexico are side by side. And New Mexico, which has passed virtually every law, still has serious problems out there.

Senator LAUTENBERG. I think they have the second highest underage fatality rate in the country.

Mr. ARENA. Yes, correct.

Senator LAUTENBERG. The second highest in the country. So when we talk admiringly about their enactment of laws, we must also consider the fact that young people get killed more often, approximately twice as often, as they do in New Jersey or some of the other States around the country.

Mr. ARENA. About seven times as much, Mr. Chairman.

Senator LAUTENBERG. Twice the Federal average, I am reminded by Peter. And seven times, you are saying, the——

Mr. ARENA. Seven times the New Jersey rate. In New Jersey, out of 100,000——

SECTION 410 IMPACT

Senator LAUTENBERG. Then I have got to ask you a question. What does this tell us about the success of the incentive programs?

Mr. ARENA. Well, the incentive program, Mr. Chairman, is based on a prescriptive item. Pass this law and you get money. Performance base would say, you need to reduce underage drunk driving. Put together a program that works and we will recognize you.

Mr. BROWNLEE. Mr. Chairman, if I might, we are taking a long-term look under the 410 program at the changes that have occurred as a consequence of the legislation and the incentives that were provided, in order to get a better answer to that question.

Unfortunately, it is going to take us a bit of time. But I think it is important to point out that the incentive programs stimulate laws and programs within those States that occur over differing periods of time. The date when a State actually gets a grant may be less important for assessing the programmatic and legal changes that occur over time.

STATE REACTION TO DRUGGED DRIVER LAW

Senator LAUTENBERG. Mr. Brownlee, do you know how many States were prompted to enact new license revocation laws for drug offenders since the enactment of my provision on drugs?

Mr. BROWNLEE. Yes; that program, as you are aware, Mr. Chairman, requires that a State have a driver's license revocation program for drug offenders. To date, six States have enacted laws that we have reviewed and found in compliance with the Federal law. There are 19 States that have submitted resolutions that oppose the enactment of these laws.

As you are aware, Mr. Chairman, you can either pass a law having the license revocation provisions or you can opt out by passing a resolution in opposition to the Federal legislation.

SUBMITTED QUESTIONS

Senator LAUTENBERG. I regret it, but there is a vote on the floor that compels me to be there. Therefore, we will submit any more questions in writing and thank each one of you for joining us today. What you are doing is very important.

[The following questions were not asked at the hearing, but were submitted to the Departments and witnesses for response subsequent to the hearing:]

PUBLIC HEALTH SERVICE

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

IMPORTANCE OF LICENSE REVOCATION

Senator Lautenberg. General, you have been a strong advocate for State laws mandating drivers' license revocation from underage youth found driving while intoxicated.

o Do you consider this the single most important measure a State can take to minimize drunk driving by underage youth?

Answer. There is no single solution to the problem of impaired driving by our young people. However, we have known for at least two decades, and continue to amass anecdotal evidence, that young drivers fear the loss of a license more than older drivers. To be effective, however, license revocation should be done administratively -- without lengthy and costly court proceedings -- and it should be coupled with other enforcement measures such as lower blood alcohol content (BAC) for young drivers and community service/alcohol education. In addition, research has shown that license revocation measures are enhanced by accompanying media campaigns.

o Do we currently have solid data indicating that this is the single most effective mechanism in attacking underage drunk driving?

Answer. As I indicated, we have solid documentation that young drivers fear the loss of a license in NHTSA's 1974 report, Identification of Countermeasures for the Youth Crash Problem Related to Alcohol. Also, a review of the evidence contained in the Surgeon General's Workshop on Drunk Driving concluded that "Generally, license actions are superior to remedial education or treatment."

Most recently, a law enforcement official was quoted in a report on state laws and enforcement done for me by the HHS Inspector General as saying, "[t]he one thing that a minor cares about is his driver's license. Other penalties, like fines, don't work."

LOWER BLOOD ALCOHOL CONTENT LEVEL FOR YOUNG DRIVERS

Senator Lautenberg. Back in 1986, some of the pre-eminent researchers on teenage drunk driving showed that adolescents, more than any other age groups, do not know the number of drinks that will impair their driving abilities.

o Given the ignorance on the part of youth as to what is a "safe" level of drinking in order to drive, doesn't it make sense to insist, especially among young people, that no level of drinking is acceptable if they are planning to drive?

Answer. Absolutely. Indeed, there really is no "safe" level of drinking and driving, if one considers that impairment begins after only one drink.

BEEFING UP STATE ALCOHOL LAWS

Senator Lautenberg. General, you have traveled to several States to talk about problems with teenage alcohol abuse and drunk driving. We have seen progress on the part of many States in beefing up their State laws to prevent teenage drunk driving, but much remains to be done.

o What have you identified as the largest obstacles to serious action by the States to tackling this problem?

Answer. The major reason preventing all of us, including the States, from doing better is societal apathy, even good-humored tolerance -- a "kids will be kids" attitude. This complacency is often coupled with ineffective laws or lackadaisical attitudes on the part of State and local governments aimed at the law's enforcement. But that is not all of the story. Many States have difficulty enforcing these laws either because of budget and staff constraints, low priority to enforce, and/or lack of Alcoholic Beverage Control Board or "ABC" jurisdiction over minors.

Law enforcement officials also point out that parents do not like their children arrested for "doing what everyone else does." One official described enforcement of alcohol laws as "a no-win" situation. And another commented, "Local police have another priority -- [illicit] drugs. They ignore alcohol."

Senator Lautenberg. General, in one of your reports, you, like the National Transportation Safety Board (NTSB), have endorsed the enactment of several State laws to further address the problem of teenage drunk driving.

o Given the dismal record by the States in enforcing the prohibition on alcohol sales to minors, what makes you think that putting more laws on the State books will make a difference?

Answer. The types of laws I have endorsed -- point of sale, vendor training, dram shop and social host laws -- all are designed to both raise awareness of the law and to place the responsibility for teen access to alcohol where it belongs: on the adults who provide it or sell it to the minor. And these laws make enforcement easier by removing some of the loopholes. Obviously, also, as good as these laws are, they are only as effective as their enforcement. Similarly, when fines are imposed the kid should not be the only one fined; the vendor should be fined equally as well.

Senator Lautenberg. General, you have pointed out that, while some States prohibit the sale of alcohol to minors, there are still some States that do not prohibit the possession of alcohol by minors.

o Can you identify those interested parties who you know are opposed to prohibitions on the possession of alcohol by minors?

Answer. Obviously, some kids would like the 21 law to be repealed. One can also speculate that there are those in the alcohol and advertising industries, particularly the brewers, who are trying to reach a younger crowd.

Senator Lautenberg. General, you have endorsed the enactment of several laws by the States to address the teenage drunk driving question.

o Do you simultaneously endorse Federal action to require the States to implement those laws, such as lowered blood alcohol content (BAC) levels for youth and the revocation of licenses of teenagers caught driving under the influence of alcohol? If not, why not?

Answer. As I stated in my appearance before your Subcommittee, I think incentives, coupled with information on the consequences of continuing their current practices, will work better with the States than punitive or rigid requirements.

REVERSAL OF GAINS FROM NATIONAL MINIMUM DRINKING AGE ACT

Senator Lautenberg. According to the Insurance Institute for Highway Safety, we made great gains in lowering the percentage of teenage drivers who died in highway crashes due to alcohol since the enactment of the National Minimum Drinking Age Act. However, in recent years, our progress has begun to reverse itself. The percentage of teenage drivers dying in highway crashes whose blood alcohol exceeds the legal limit rose from 28 percent in 1987 to 33 percent in 1991.

o General, what do you think explains this reversal?

Answer. As I understand it, the Insurance Institute data comes from 28 states and only reflects fatalities among drivers. If one looks at national data, total youth fatalities in alcohol-related crashes are falling steadily. It is interesting to note that the number of non-alcohol-related fatalities rose until 1988 and then began to fall as well; thus, although alcohol-related fatalities are still going down, the decline is not as rapid as in earlier years. The bottom line is that the total number of fatalities in our youth continue to fall and that "progress" gets harder as the numbers get lower.

UNEVENNESS IN ENFORCEMENT OF ALCOHOL PURCHASE LAWS

Senator Lautenberg. General, as you know, there have been surveys taken by the Insurance Institute, as well as doctors and lawyers for drug-free youth, indicating how obscenely easy it is for underage youth to purchase alcohol in several major cities across the country. Even so, it is not true for all cities in the United States. Data indicates that it is five times easier to purchase alcohol as a minor in Queens and Manhattan than it is in San Diego.

o What do you think explains the extraordinary range in difficulty for underage youth to purchase alcohol in this country?

Answer. I think it depends on loopholes in the laws in the individual states. I think vendor awareness, indeed, community awareness also plays a huge role in whether young people can purchase alcohol. For example, I know that there is a very active alcohol awareness group operating in San Diego, and that might have some bearing. And, of course, enforcement is key.

Senator Lautenberg. It appears that those cities for which it is easier to purchase alcohol as an underage youth are not necessarily those that fail to prohibit the purchase of alcohol. Just because the State law is on the books does not meet [sic] than [sic] youth are not successful at purchasing alcohol.

o What do you think this tells us about the value of putting more laws on the books at the State level without adequate enforcement?

Answer. You have said it all -- without adequate enforcement, which starts with adequate awareness of the law, youth are going to have an easy time purchasing alcohol. The bottom line is that we should enforce the laws that are on the books. And that enforcement begins with awareness by everyone in the community of the national 21 year old requirement.

50 PERCENT CONVICTION RATE FOR DWI

Senator Lautenberg. General, according to information provided by NHTSA, it appears that the conviction rate for drunk driving offenses is roughly 50 percent. This seems to indicate that half of all intoxicated drivers found driving above the legal limit are not being convicted for the crime for which they have been arrested.

o What have been your observations regarding the criminal justice system as it relates to the seriousness with which it addresses drunk driving arrests?

Answer. First of all, a conviction rate of less than 100% is not bad -- it just means you are pursuing the hard cases. However, I add that this is all the more reason we should be pursuing administrative license revocation. Not only do kids feel the immediate consequences of their actions, ALR is not a criminal offense, and the driving offense only stays on their driving record for a given period of time.

o Are you content that this 50 percent conviction rate is adequate to send the necessary message to the driving public?

Answer. Clearly, we need to give more attention to the prosecution of drunken driving offenses (if ALR is not in effect), and we need to see to it that there is more training for prosecutors and judges about drunken driving offenses.

WHY ARE YOUNGER DRUNK DRIVERS LESS LIKELY TO BE ARRESTED?

Senator Lautenberg. General, the NTSB pointed out that young people are arrested for DWI at rates far below their rate of involvement in alcohol-related auto accidents.

o Why do you suppose young people are less likely to be arrested for DWI than the older population?

Answer. According to NHTSA, there are several reasons: first, youth drinking occurs at remote locations away from normal enforcement (they don't drink in bars); impaired driving by youth occurs at "peak hours" of 10PM-1AM on weekends; and youth drive differently drunk (speed, erratic), which may affect youth DWI detection. Most importantly, youth can exhibit obvious signs of impairment at BAC levels below those at which impairment is seen in experienced drivers. Thus, if the legal BAC is 0.10, and a young person's BAC is much lower, he or she may not be arrested.

o Why do you believe we a [sic] doing a worse job at prosecuting underage youth for DWI than the general population?

Answer. I believe it is because it is tougher to get criminal penalties for young people. Our justice system provides more safeguards for juveniles, and, obviously, there is a sympathy factor. Again, let me reiterate my support for ALR here -- it is not a criminal offense and doesn't give a young person a criminal record.

QUESTIONS SUBMITTED BY SENATOR SASSER

Senator Sasser. Despite progress in combatting drunk driving, there remain many educational and enforcement obstacles. Based on your extensive involvement in this area, ar there any strategies that have been successfully utilized in other countries that might have similar application here?

Answer. According to NHTSA, Norway and Sweden have the lowest rates of alcohol involvement in traffic crashes. Their success has been attributed to a combination of tougher laws, consistent and visible enforcement, and a high social unacceptability of drinking and driving. Australia's introduction of "random breath testing" led to remarkable reductions in alcohol-related and total traffic fatalities. Obviously, stronger laws and better enforcement of those laws, coupled with public awareness leading to social approbation for impaired driving, are all successful strategies -- and ones we are utilizing here. We just need to keep doing more of the same.

Senator Sasser. After one has gone through the chain of parties involved in an underage drinking and driving scenario, there are various layers of responsibility. A very large part of the responsibility should be shouldered by the parent. While obviously every parent in every home will not respond identically, there is nonetheless a bottomline of responsibility that rests with the parent. How would you recommend structuring a deterrent such that parents will assume a greater role and responsibility in working with their children?

Answer. My answer is twofold. First, I think parents should be the principal providers of alcohol education, and they should start early, and they should be full partners in any school efforts. Second, when and if their children are involved in any alcohol-related offense, the parents should share part of the burden. For example, they should be required to do community service with their children. (I do not mean, however, that they should just be able to pay a fine for their children.)

Senator Sasser. Have any of your studies tracked impaired youth into the early stages of adulthood to assess the effectiveness of early intervention and prevention strategies?

Answer. Yes. NIAAA does have current studies underway to assess the effectiveness of early intervention and prevention strategies at one of our alcohol research centers, the Adolescent Development Center in Pittsburgh, Pennsylvania. This center is only three years old, so there are no findings on effectiveness to report yet.

MOTHERS AGAINST DRUNK DRIVING

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

FEAR OF LOSING ONE'S LICENSE OF PARAMOUNT CONCERN

SENATOR LAUTENBERG. Mrs. Kirk, do you think the threat of losing one's license has had a significant impact in those states where that penalty has been systematically levied against underage drunk drivers?

MS. KIRK. The driver's license is the most important possession of a young person. We find license sanctions to be most effective in convincing underage drivers not to drink and drive. I know of no study which has specifically targeted underage drivers in terms of administrative license revocation's effectiveness, but the Insurance Institute for Highway Safety suggests a 9% drop in nighttime fatalities for all drivers. A similar impact on young drivers would be a reasonable assumption.

And research does show that lower BAC limits for underage youth are effective in reducing youthful crash involvement.

SENATOR LAUTENBERG. Do you know of any penalty that is more effective in controlling the drinking and driving behavior of underage youth than revocation of their driver's license?

MS. KIRK. To answer simply, no. However, I have learned not to answer simply when it comes to drunk driving. If we want to control underage drinking and we could only do one thing, license revocation would be it, but, we need to do more than one thing to be truly effective. A crackdown on underage drinking, absent an overall crackdown on drivers of all ages, would be, in my opinion, less than optimum. We need to combine license revocation, as a function of a zero tolerance mode for underage drinkers, with ALR across all age groups, with .08 BAC for those over 21. Changing the general environment in which all drivers operate is the best way to go about this.

More specifically, research does show that where ABC regulations and Age 21 laws are being enforced, young people are less successful in obtaining alcohol. Also, as mentioned, lowering BAC limits and publicizing the changes and the penalties has proven effective.

SENATOR LAUTENBERG. Ms. Kirk, in your opening statement, you strongly endorse a change in the Federal law to require that driver's licenses be revoked from minors who are caught drinking and driving.

What do you recommend as the ideal duration for the revocation of their license? Should their license be revoked for 6 months, a year, 3 years?

MS. KIRK. I am tempted to say the longer the revocation, the clearer the message, but in truth, I think 6 months for a first offense combined with a provisional licensing system for young drivers would be acceptable. A young person who drinks and drives should know that his or her license will be gone for six months and that they will not have full driving privileges for a period longer than that. That would get the message across.

SENATOR LAUTENBERG. Mrs. Kirk, you and your organization have been involved in numerous fights within the state legislatures to beef up state laws to address drunk driving. As you know, this subcommittee funds several state grant programs that are intended to serve as an incentive for states to enact tougher drunk driving laws.

What has been your experience with the degree to which these relatively small state grants have actually served to provide the states to do the right thing?

MS. KIRK. If the state legislatures themselves do not see the relevance of ALR or .08 in terms of safety--in other words, if there is no safety constituency active in a state for those initiatives--oftentimes the money at stake will not be sufficient to make a difference. But, in most cases, we find that the availability of federal incentive grants complements safety arguments advanced by state legislators and can become a most effective additional reason to adopt safety measures.

SENATOR LAUTENBERG. Are you familiar with the states that have enacted certain legislation simply due to the availability of federal state grants?

MS. KIRK. I don't believe that state legislatures pass safety initiatives simply to get federal incentive grant money. The grant money is part of the reason for passing a safety measure. The life-saving potential of the message itself is the paramount reason.

SENATOR LAUTENBERG. The National Transportation Safety Board has pointed out that young people are arrested for DWI at rates far below their rate of involvement in alcohol-related auto accidents.

What can you tell us as to why young people are less likely to be arrested for DWI than the older population?

MS. KIRK. I would be disappointed if the NTSB referred to alcohol-related auto crashes as "accidents". We maintain, Mr. Chairman, as you know, that drunk driving is not an accident. Drunk drivers chose to drink and drive.

We know that only a small fraction of all those who actually drink and drive are ever arrested. I also know NHTSA funded research into the reasons for especially low arrest rates among young drivers. Results showed that young people drive at different times and in different places than do older people. Detection cues are different for young drinking drivers. But also, local policies and conditions affect the likelihood that young people will be arrested and charged with an offense.

SENATOR LAUTENBERG. An attachment included with Mr. Arena's testimony shows the incredible diversity in fatality rates among the 18-20 year old group between states. New Jersey's fatality rate for underage youth is one-third of the national average, while several rural states, like Montana, New Mexico and Wyoming, are more than double the national average.

What can you tell us about the responsiveness of rural states to the underage drunk driving problem? Are many of these state making a sincere effort to minimize underage drunk driving, and facing a very difficult challenge, or do these numbers indicate a lack of effort on the part of these states?

MS. KIRK. I believe rural states have citizens, and state officials as well, who are equally as concerned about the problem of underage drinking and driving as are those in more populous states. They do deal with some realities not faced by more urban areas, such as a higher rate of miles driven per licensed driver because of the distances they must travel, which means more exposure to crash risk than may be true for city dwellers. Some states such as New Jersey have indeed done an admirable job in working to reduce the toll of alcohol-related incidents among its youth. However, I believe that all states could do a better job of enforcing underage drinking and impaired driving laws.

SENATOR LAUTENBERG. I was interested to read in NHTSA's report that, more than the risk of going to jail, adults are primarily concerned with the loss of their driver's license if convicted of DWI.

Would you estimate that underage youth share a similar preeminent concern for the loss of their license over a jail sentence?

MS. KIRK. For young drivers, the license is their most prized possession. One reason all drivers fear the loss of a license somewhat more than going to jail is that they estimate that the likelihood of losing their license is much higher than of their going to jail. The punishment for drunk driving must be swift and certain if it is to be a deterrent. That's why MADD supports administrative license revocation. It gets the drunks off the road--quickly.

SENATOR LAUTENBERG. Data indicates that, after the fear of being in an accident, people in social drinking situations are most concerned about being stopped by the police as a reason to control their alcohol consumption. However, we know that teenagers tend not to have the same fears as adults when it comes to reckless behavior.

Do you believe the threat of being pulled over by the cops looms large in the minds of teenagers when it comes to controlling their alcohol consumption?

MS. KIRK. Kids are pretty smart. If they think that the likelihood of being stopped is remote, and it often is, getting pulled over won't interfere with their notions of immortality, that idea that "it won't happen to me." We need to increase their awareness that it can in fact happen to them. We can do that through education and programs like special graduation celebrations free of alcohol. Again, we also have to employ strategies geared to all drivers like sobriety checkpoints.

QUESTIONS SUBMITTED BY SENATOR SASSER

SENATOR SASSER. The Surgeon General has stated that penalties against impaired youth are often too lenient and do not serve as effective deterrents. This is true as evidenced by the enforcement community's reluctance to punish what is often perceived as "youthful indiscretion". As a result, such alcohol related offenses often go without penalty in the hope that the mistake won't be repeated. We know, of course, that this is often not the case.

MADD advocates responsibility by all parties, including the impaired teenage driver. In addition to revoking the license or changing the licensing process, what specific early treatment strategies can be taken to better ensure that the impaired teenage driver will not become am impaired adult driver?

MS. KIRK. Young people think they are immortal. They need to see that this is not the case. Encounters between victims of drunk driving and teens have been effective. Testimony by their peers who have been injured and have to live with the damage done by drunk driving can also be effective. Involving parents in treatment works. Parents should be informed along with young people about the consequences of drunk driving as regards insurance rates, license penalties and other statutory sanctions.

Notions of immortality, however, are not easily overcome. We find that nothing works as well as license sanctions with youth. We can scare them; we can try to educate them, but ultimately what works is taking the keys and, if that doesn't work, taking the car.

SENATOR SASSER. There continues to be concern about alcohol consumption on college campuses. There have been too many tragedies involving parents who have sent their children out of state to attend college, only to have that child return home as a statistic of an alcohol related incident.

To what extent have college campuses, through their admissions offices and student health facilities, provided university guidance regarding alcohol consumption on campus? Also, to what extent are alcohol related incidents on campuses being reported to enforcement authorities off campus?

MS. KIRK. While MADD does not ordinarily address all of the ways in which alcohol impacts society, we do concern ourselves with underage consumption. And we are aware of the high levels of alcohol use involved in a wide range of crimes among youth, violence against women on campus and impact on dropout levels--all of which testify to the need for better Age 21 law enforcement.

Some colleges do a good job of regulating alcohol on campus; some do not. Some schools have demonstrated real courage since passage of the 21 law and have made strenuous efforts to enforce the law. We continue to see, however, a laxity on the part of many colleges, particularly those with a financial interest in selling alcohol on campus. We continue to see beer promotions on college campuses which obviously run counter to efforts to curb underage drinking.

SENATOR SASSER. Surgeon General Novello suggested beginning the educational process as early as pre-school. To what extent have strategies to combat underage drinking been initiated by Parent, Teacher Associations (PTAs)?

MS. KIRK. At the PTA level, there has been good cooperation with efforts by MADD and others to address the problems of alcohol and other drug abuse. Early education is certainly a strategy which should be employed but we should not put all our eggs in the basket of early education. There is no one simple way to stop drunk driving. Messages that students get in school must be consistent with the messages they get at home from parents and with the messages they see on TV. A well-educated student who learns that alcohol is a drug in school will find it odd if daddy needs the use of this drug to unwind after work and if the message on the baseball game is that watching a ballgame without a beer is unusual. There are a lot of mixed messages out there and early education has a role, but not the only role, in straightening them out.

SENATOR SASSER. Very often a person over 21 will purchase alcohol substances that are subsequently consumed by an underage youth. How do you appropriately assign responsibility and mete out effective deterrent actions in such instances?

Answer. The law has limits. If parents are going to buy alcoholic beverages for their children and serve them in their homes, there is not much one can do in this society, which places a high value on personal freedom, to stop them. But, if those children hurt others by whatever means including drunk driving, those parents should be held responsible in the same manner that a commercial server or a social host should share the responsibility if they serve a clearly intoxicated person.

Research announced recently in Atlanta showed that 54% of 9th and 12th graders obtain their alcohol from people who are age 21 or older. Not all of these are parents, certainly, and more needs to be done to discourage and penalize adults who provide alcohol illegally to minors.

A process like keg registration has a role to play as well. If a parent buys a keg for their children and other peoples' children partake of that keg and someone gets hurt, then the person who purchased the keg should share the responsibility.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

.08% BLOOD ALCOHOL STANDARD FOR DWI

SENATOR DOMENICI. All of us are painfully aware of the psychological and physical costs and the fiscal implications which result from the carnage which we as a nation inflict upon ourselves each year on America's highways.

Approximately five million of our constituents yearly are motor vehicle crash victims, costing employers 15 million days of lost time and $48.5 billion annually, according to some estimates.

Drunk drivers are a major part of the problem. In 1991, of the 41,462 Americans who died on our highways, 48%, or 19,900 people, lost their lives in alcohol-related accidents.

As a result, I have now introduced two bills which will make significant contributions to the attack on drunk driving throughout our country.

One of these bills, S.605, will encourage states that have not yet done so to establish a .08 blood alcohol content (BAC) level as the legal standard for intoxication. I understand that you are aware of its provisions.

Nine states have now adopted .08, but 37 states still have .10 as the presumptive standard for intoxication and four others plus Puerto Rico have no presumptive level at all.

I remain convinced that .08 is a critical component of a broad-based assault on this national tragedy:

.08 is a significant level of impairment--even the most experienced drivers have reduced driving skills at this level.

Fatality risks at .08 are markedly enhanced--for drivers with BACs of .05 to .09, the risk of a single vehicle crash is 11 times that for a driver with a .00 BAC.

.08 saves lives--since California instituted a .08 law, alcohol-related fatalities have fallen 12%.

.08 raises awareness and changes behavior--80% of surveyed California drivers were aware that a stricter standard had been imposed after 1 January 1990 and 50% indicated that they were less likely to drink and drive as a result.

.08 enhances prosecutions--margins of error in test equipment had made prosecutions of individuals with BACs at or below .12 less probable. Lowering the limit to .08 means that prosecutors will be able to get convictions on those with indicated BACs of .10.

At this point over twenty major interest groups fighting the DWI war, including Mothers Against Drunk Driving and Advocates for Highway and Auto Safety, have endorsed this bill and are working actively with us to assure it becomes law.

While I am directing these queries to the administrator of the NHTSA, I am eager to hear what other members of the witness panel have to say, as well.

What do you think would be the impact on DWI in this country if all 50 states adopted this standard?

MS. KIRK. More severely impaired drivers would be arrested and convicted of drunk driving with the publicity from a crackdown serving as a deterrent to drunk drivers generally.

When California combined lowering its BAC level to .08 and adopting administrative license revocation, it lowered its fatalities by 12%. We would expect similar reductions across the nation if .08, along with ALR, were adopted in every state.

In addition, a .08 limit would help to inform and educate the public about the level at which major impairment actually occurs.

SENATOR DOMENICI. Does NHTSA endorse the .08 standard?

MS. KIRK. Yes, it does.

SENATOR DOMENICI. Should the federal grant initiative for drunk driving prevention, referred to as the Section 410 program, which now requires states to meet some, but not all, established criteria to gain additional incentive money, be tightened so that all criteria must be met in order to get funds--including the designation of .08 as the presumptive level of intoxication?

MS. KIRK. MADD supported legislation in 1991, as part of the ISTEA legislation, which would have required every state, after a grace period, to adopt .08 BAC. A state which failed to do so would no longer be eligible for an incentive grant. That provision was found in both the House and Senate bills as passed by each body, but changed in conference. MADD believed then and continues to believe that .08 BAC should be the illegal level of intoxication in every state.

SENATOR DOMENICI. Should the standard be tightened even further, and, if so, under what conditions?

MS. KIRK. There are really two separate standards under consideration. One is the standard which applies to impairment; the other is the standard by which we define a level of impairment which is considered too severe to tolerate. If we were setting a limit on the basis of impairment alone, the level might be set as low as .04 or .05 BAC. Note that the standard for commercial motor vehicle operators and airline pilots is .04 BAC by force of an act of Congress.

The BAC level at which we deem one intoxicated--at which we say they should not be driving a car--is really more a political standard than a scientific one. The question is: given the fact that we live in a country which tolerates a level of mixing drinking and driving, what should the level be? The legal limit, as it is known, in most states today is .10 BAC, which on the basis of impairment is a most generous definition of intoxication. But often those who drive at .10 BAC are not arrested or, if arrested, are not prosecuted as drunk drivers because the benefit of the doubt on a "borderline" .10 goes to the drunk driver. The police do not want to do the paperwork or expend the court time on borderline cases. So fewer people are arrested and fewer still convicted for driving while severely impaired.

As a product of the art of the possible, we believe that the .08 BAC level is clearly supportable on the basis of impairment and is achievable politically. We have seen four states adopt this standard within this year alone, bringing to nine the number of states at this level.

FUNDING THE DWI FIGHT

SENATOR DOMENICI. I know that the effort we are now taking to reverse the death toll on our highways is underfunded. My understanding is that last year the Drunk Driving Prevention Incentive Grant Program received only $11 million of the $25 million authorized. I plan to work hard this year to see that the Section 410 program is fully funded. I have also introduced S.604 which amends the 1968 Omnibus Crime Control and Safe Streets Act by adding a twenty-second category of initiatives toward which states may apply fornula grant money, and allows states to fund programs for the prosecution of driving-while-intoxicated charges and for the enforcement of laws relating to alcohol use and the operation of motor vehicles.

What is the return on investment for every dollar spent on DWI prevention in terms of money saved in costs to the American taxpayer and the national economy in general?

MS. KIRK. The cost of drunk driving, based on a conservative estimate, is $46 billion per year. That $46 billion figure does not calculate the pain and suffering of families which fall victim to this violent crime. The direct medical costs amount of $5.5 billion per year, controlling head injuries, for which auto crashes and drunk driving are largely responsible, would go a long way to controlling spiraling health care costs. Finally, each fatality costs society, conservatively, $700,000.

I would also refer to the paper we submitted for the record which elaborates on the relationship between drunk driving and health care costs.

NATIONAL ASSOCIATION OF GOVERNORS' HIGHWAY SAFETY REPRESENTATIVES

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

MUNICIPAL VERSUS CRIMINAL PENALTIES IN NEW JERSEY

Question. New Jersey's drunk driving laws are treated as municipal traffic offenses, not criminal offenses. Please explain the differences in the manner New Jersey treats drunk driving offenses and discuss both the benefits and the deficiencies of the unique manner in which New Jersey prosecutes drunk driving cases.

Am I correct that, under the New Jersey system, minors are automatically treated as adults for purposes of prosecuting drunk driving cases?

Answer. The New Jersey approach to DWI was established in the 1920's and has been sustained with few modifications over the years. Additionally, the courts have upheld the approach. Although DWI's are not treated as criminal offenses in New Jersey, the New Jersey civil approach is just as effective, if not more so.

Under New Jersey's system, DWI is a traffic offense just like a speeding ticket and is heard in a municipal court. The DWI penalties do not cross the state constitutional threshold which would make the charge a criminal one. There are no diversions, and court rules forbid plea bargaining; therefore, cases are heard on the original charge. All penalties have mandatory minimums.

The current conviction rate on the original charge is between 85-90%. After conviction, the defendant must attend an alcohol screening program and if diagnosed as a problem drinker, must enter a treatment program.

There are no provisional or hardship licenses and all suspensions are "hard". There is extensive public information and education to deter the public from driving drunk and to inform them of the consequences of such action.

New Jersey's approach to impaired driving encourages convictions, discourages waivers, plea bargains and diversions, and treats impaired driving in a systematic manner from arrest to treatment. Through its PI&E program, the public is well informed of the consequences of impaired driving and they know that New Jersey upholds its drunk driving laws. Drunk driving is perceived of as a very serious offense in New Jersey. As a result, there is rapid case resolution, a high rate of convictions, low repeat arrest rates (15% within a ten-year period), and high deterrence which results in a low level of impaired driving fatalities.

Since DWI is not a criminal offense, cases involving minors are not heard in juvenile court. All are heard before the municipal court judge, and all the penalties which apply to adults also apply to minors. This has a significant deterrent effect on minors.

WHY ARE YOUNGER DRUNK DRIVERS LESS LIKELY TO BE ARRESTED?

Question. The National Transportation Safety Board has pointed out that young people are arrested for DWI at rates far below their rate of involvement in alcohol-related auto accidents. What can you tell us as to why young people are less likely to be arrested for DWI than the older population?

Answer. Arrest rates for young drivers vary from state to state. Furthermore, analysis of arrest rates alone may not indicate the effectiveness of a state's drunk driving program. Conviction rates, fatality rates, number of persons entering and completing treatment programs, and recidivism rates are also important indicators of effectiveness.

Low arrest rates and low fatality rates for young drivers may indicate a successful program. The behavior targeted has actually changed. If the arrest rate is high, but the death rate is also high, there are efforts being made to reduce drunk driving but those efforts are not producing the desired results. If the state has a low arrest rate but a high fatality rate, the focus of the program may need to be changed.

In some states, youth are not arrested because the law enforcement community does not want to bear the onus of arresting children. Youth may not be convicted at high rates because judges and prosecutors do not want to bear that same burden. State legislators may not support tough drunk driving laws for youth because they view underage drinking and driving as a "rite of passage." Limited resources may preclude the enforcement community from arresting youth.

EFFECTIVENESS OF ADMINISTRATIVE LICENSE REVOCATION LAWS

Question. As you know, the NTSB has listed administrative license revocation laws as the single most important step a State can take to combat drunk driving. This recommendation is considered one of the NTSB's 20 "most wanted" recommendations to improve transportation safety. New Jersey is listed as one of the 16 states, however, that do not have an administrative license revocation law. Please explain why New Jersey does not have such a law, and what alternatives are in place that address this same issue.

You have a great deal in contact with our fine police agencies in the state of New Jersey. One of the criticisms leveled against remedies such as license revocation of underage youth and lowering the BAC level of underage youth, is that police agencies would be overloaded with cases and the already crowded court dockets would be of the more overcrowded. What can you report to us regarding the concerns of the New Jersey police agencies regarding changes in law that might require more legal actions against drunk drivers.

Answer. New Jersey has a simplified traffic charge for DWI. Charges are heard before a municipal court judge, on average within 45 days of arrest. There are no jury trials or diversion programs, no provisional licensing arrangements, and no bargaining on fines or penalties. As a result, New Jersey is able to remove the license swiftly and impose mandatory penalties.

The statute has a high deterrent value, and New Jersey has one of the lowest DWI fatality rates in the nation. The statute is effective, and the state sees no reason to change it and make the revocation process an administrative one.

In New Jersey, the police are enforcing the "use and lose" law. Since there is increasing compliance by young people, the arrest rate is low. Consequently, there is no burden on the enforcement community. Arrests cases are disposed of quickly, and there is no court overloading.

In other words, if tough drunk driving laws are actually enforced and the public understands that, arrests may decline due to *increased compliance. If there is an administrative or judicial system in place that can quickly and adequately handle drunk driving cases, then there is little or no additional burden on the state's institutions.*

THE DRUNK DRIVING FATALITY RATE

Question. An attachment included with NAGHSR's testimony shows the incredible diversity in fatality rates among the 18-20 year old group between states. New Jersey's fatality rate for underage youth is one-third of the national average, while several rural states, like Montana, New Mexico, and Wyoming, are more than double the national average. What can you tell us about the responsiveness of rural states to the underage drunk driving problem? Are many of these States making a sincere effort to minimize underage drunk driving, and facing a very difficult challenge, or do these numbers indicate a lack of effort on the part of these states?

Answer. States have different impaired driving fatality rates for many reasons. They may differ in terms of: availability of enforcement resources, population density and vehicle miles of travel (which translates into different rates of exposure to risks), adequacy of emergency medical services, degree of community involvement, state priorities, and amount of high risk populations, among other factors.

Rural states may have a particularly difficult time addressing impaired driving problems because they have to spread their existing resources over large areas. This is especially problematic for the delivery of enforcement and emergency medical services.

Some rural states, such as New Mexico, have made an enormous effort to address drunk driving. As noted in NAGHSR's testimony, New Mexico has led the nation in the passage of tough drunk driving laws and the development of self-sufficient drunk driving programs. Yet, New Mexico's impaired driving fatality rate for young drivers is among the highest in the nation. New Mexico clearly has the will but not the success.

In some cases, a rural state may not have the will to address impaired driving problems because they have to confront other problems that the state perceives as more important. Without a detailed state-by-state analysis of the effectiveness of impaired driving programs, it is difficult to determine why rural states have or have not been successful. MADD's 1993 Rating the States survey should provide a more comprehensive picture of what laws and programs states have or do not have. NHTSA should also conduct an analysis of state impaired driving fatality rates and other performance indicators, as was suggested in NAGHSR's testimony. These combined efforts should help clarify why some state efforts work and others do not.

EFFECTIVENESS OF INCENTIVE GRANTS vs. HIGHWAY SANCTIONS

Question. Using the threat of sanctioning federal highway funds, we were successful in prompting all 50 states to raise the drinking age to 21. While we have safety grant programs to prompt the states to pass tougher laws to control drunk driving, some states have taken very tough action while other states have done very little. Would you agree that sanctioning the states is a more effective tool in getting the states to act in this area?

Have you observed that those states that have been the most successful at qualifying for the federal incentive grants also have demonstrated the greatest success in lowering drunk driving fatalities?

New Mexico was the first state to qualify for the new Section 410 program but their drunk driving fatality rate continues to be fare in excess of the national average. What does this tell us about the success of the federal incentive programs in rewarding progress by the states in controlling drunk driving?

New Jersey has been identified as one of the nation's leaders in reducing fatalities resulting from drunk driving. Yet, there are many federal incentive grants for which New Jersey still does not qualify. What does this tell us about the success of the federal incentive programs in rewarding progress by the states in controlling drunk driving?

On the question of whether it is more effective to use the carrot or the stick, you have stated that, "Sanctions will not move the provisions ahead, and may even slow the progress we have been able to see. Sanctions will hurt the very programs they are ostensibly designed to assist." Why do you find that sanctions hurt efforts to prompt states to enact tough highway safety legislation?

Why do you find that sanctions hurt efforts to prompt states to enact tough highway safety legislation?

If financial incentives are adequate to move the states to enact tough legislation, why do we see such a diversity of laws on the books in the several states addressing the underage drunk driving problem?

If states are addressing the underage drunk driving problem in several different ways, does it make sense to enact new incentive programs that will dictate the mechanisms through which we expect states to address the problem?

Answer. Evidence about the effectiveness of sanctions is unclear. Raising the drinking age to 21 has been very successful in some states and less successful in others. As a countermeasure, it was relatively simple and direct and had application nationwide. There was also a clear interstate interest in eliminating "blood borders" between states. Many states had raised the limits before the sanctions because it was the right thing to do. Others only adopted the minimum drinking age legislation because they were forced to do so. Impaired driving fatalities for teenagers have dropped significantly over the last eight years, partly because of the passage of 21 drinking age laws.

Other sanctions, however, appear to be less successful. Sanctions for noncompliance with the national maximum speed limit have had relatively little impact, and speeds in states around the country have progressively increased. The sanction has been unsuccessful, in part, because Congress had placed a moratorium on it every year. As a result, many non-compliant states did not take the sanction seriously. Additionally, the sanction failed because it made no sense from a policy perspective. States that resisted political pressure to raise speed limits, maintained the 55 mph speed limit on rural Interstates, and had very low fatality rates (such as Connecticut, New York, New Jersey) were also subject to sanctions for noncompliance.

Over the last decade, fewer and fewer states have budgetary surpluses, while more and more responsibilities are being shifted to state shoulders. At the same time, states have been subject to an *increasing number of transportation-related sanctions. Congress seems particularly inclined to sanction states for failure to achieve highway safety-related objectives. Hence, more and more states view federal safety requirements negatively. Many states are fed up with Congressional mandates and federal sanctions. They are willing to risk the consequences of sanctions rather than be forced to take action. In that sense, sanctions have hurt efforts to address highway safety problems.*

A case in point are the Section 159 requirements in which states must adopt legislation revoking or suspending the license of anyone convicted of a drug offense. States have the choice to comply, face stiff Highway Trust Fund sanctions, or opt out of the requirements by submitting state resolutions opposing the mandate. Despite the difficulty of submitting joint gubernatorial/state legislative resolutions and the political pressure to appear "tough on drugs", all but six states have chosen to opt out of the federal requirements. NAGHSR commends Senator Lautenberg for taking a strong stand on drug abuse and for seeking a creative alternative to traditional sanctions. We are unsure, however, that the threat of sanctions has been as effective as was intended.

There is equally conflicting evidence about the effectiveness of incentives. On the one hand, incentives seem to have encouraged some states to pass laws that they might not otherwise have passed. Incentives have also provided states with a source of needed funds with which to enforce laws, train personnel and operate public information and education programs.

On the other hand, some states that have qualified for incentive grants may not have particularly low impaired driving fatality rates. In those states, the incentives may have motivated the state to pass unnecessary state laws or state laws that don't effectively address the state's impaired driving problems. States that are facing their own budgetary problems, or states which have impaired driving laws that only need minor adjustments, may find incentive grants particularly attractive. Those states may be motivated to qualify for the incentive grants but for the wrong reasons. Additionally, some states that have qualified for the grants may have passed the requisite qualifying legislation prior to the federal grant requirement. In effect, the state is being rewarded with incentive grants for actions that have already been taken or would have been taken in the absence of the grant program.

Some states which have had difficulty qualifying for the grants (e.g. New Jersey, California, Massachusetts) have very low impaired driving fatality rates. It is extremely difficult, however, to determine what role the incentive funds played in helping those states achieve the low rates. In any case, the availability of incentive funds was not a hindrance to the states that have performed well.

Other states (e.g., New Mexico, South Dakota) have met the incentive grant criteria but still have disappointing fatality rates. It is not at all clear, however, whether the activities which make a state eligible are ineffective or whether there are other factors (such as the absence of an adequate EMS system or limited enforcement resources) that contribute to the failure of qualifying states. Nor is it clear, particularly with a state like New Mexico, that the incentive grants have been the primary motivating factor in the state's efforts to address drunk driving. New Mexico, for example, receives far more in state DWI revenues than it does in federal incentive grant funds. It appears that New Mexico has applied for *federal incentive grant funds partly because it qualified and the funds were available and partly because it needed the funds to supplement what the state was already doing. Under such complex circumstances, it is extremely difficult to evaluate the impact of federal incentive grant programs.*

Both sanctions and incentive programs have focussed on the passage of state laws. Passing laws, however, is only the first step toward addressing the problem of impaired driving and may accomplish little in and of itself. A tough DWI law must be accompanied by enforcement, training, court capacity, treatment and rehabilitation resources, and a strong public information and education campaign.

Furthermore, Congress has tended to view diverse state drunk driving laws as undesirable. However, states adopt different laws because of their diverse problems, needs and resources. Future federal impaired driving initiatives may be more successful if they encourage a more comprehensive approach to impaired driving, if they allow diversity, and if they evaluate a state's actual performance rather than dictating specific state mechanisms with which to address the problem.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

LICENSE REVOCATION FOR CONVICTED DRUG OFFENDERS

Senator Lautenberg. Mr. Brownlee, as you know, I authored a provision that sanctioned the highway construction funds of States that failed to revoke the licenses of individuals convicted of a drug offense. That law is just being implemented currently. Can you tell me how many States were prompted to enact new license revocation laws for drug offenders since enactment of my provision?

Answer. As of June 18, 1993, five States (Arkansas, Florida, Mississippi, Virginia, and Wisconsin) and the Commonwealth of Puerto Rico have officially submitted laws to comply with the provisions of Section 159, and each submission has included newly-enacted laws.

Senator Lautenberg. Mr. Brownlee, as you know, my license revocation law for drug offenders included a provision that required State legislatures to pass a resolution if they wanted to "opt out" and fail to enact drugged driving license revocation penalties. Can you tell me what number of States to date have chosen to opt out of enacting these penalties?

Answer. As of June 18, 1993, 20 States have officially submitted complying documents using the resolution option permitted in the Federal regulation. These States are:
Alaska
Colorado
Idaho
Maine
Minnesota
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Mexico
North Dakota
Rhode Island
South Dakota
Tennessee
Utah
Vermont
Washington
West Virginia
Wyoming

Senator Lautenberg. What number of States do you expect to opt out of the program because they have substantially similar legislation already on the books, versus those that will opt out because they simply do not want to address license revocation for drugged drivers?

Answer. Every State has a law regarding driver license revocation or suspension for convicted drugged drivers but every State does not have laws that include license revocation or suspension for all persons convicted of any drug offense. Data on States' reasons for choosing to "opt out" have not been collected nor requested by the regulatory (NHTSA and FHWA) agencies. All "opt out" States qualify by simply making the statement that the legislature and governor are opposed to the requirements of 23 U.S.C. 159.

FEAR OF LOSING ONE'S LICENSE OF PARAMOUNT CONCERN

Senator Lautenberg. I was interested to read in NHTSA's report that, more than the risk of going to jail, adults are primarily concerned with the loss of their driver's license if convicted of DWI. Would you estimate that underage youth share a similar pre-eminent concern for the loss of their license over a jail sentence?

Answer. Young drivers, more than older drivers, fear loss of license. This was first documented in a 1974 NHTSA report Identification of Countermeasures for the Youth Crash Problem Related to Alcohol (DOT-HS-801-344). So, we have known about the deterrent value of license suspension for teenagers for at least two decades. Even short periods of suspension time for a young person seem like an eternity. Also, youth will better adhere to suspension periods because of parental supervision, lack of car ownership and other status issues.

Underage youth, especially juveniles (usually defined as under age 18), are less likely to receive a jail sentence than adults, because of federal and state laws regarding jailing of juveniles, and because of sympathy. Consequently, youth have little fear of a jail sentence. License suspension is the more effective sanction for young drivers because it is much more likely to happen and be enforced.

INCENTIVE GRANTS VERSUS SANCTIONS

Senator Lautenberg. Mr. Brownlee, your agency administers programs that provide incentive grants to the States to enact tougher drunk driving laws. You have also had experience with laws that, like the 21 laws, sanction States for failing to enact tough drunk driving laws. Which type of incentives have you found to be most effective.

Answer. We believe that incentives are more effective than sanctions. Incentive grants encourage states to improve their drunk driving laws and programs to qualify for additional funds. Since most states seek these funds, even those which fail to qualify will improve their programs as they attempt to meet the grant criteria. Finally, those that do qualify receive additional funding, with the flexibility to use it on their most pressing drunk driving program needs.

While sanctions did work in the instance of the age 21 laws, we believe that occurred because most of the states already had the law. There was a national momentum from the states and the public to have the law, and there was also the "border state" issue where persons under the age of 21 were driving into border states without the law in order to drink. These same factors are not present for the legislation we are encouraging states to enact now.

Senator Lautenberg. Given that we now have 100 percent compliance with the 21 drinking age law, and lesser levels of compliance with the other remedies proposed by NHTSA, isn't fair to assume that sanctions are more effective than financial incentives?

Answer. Sanctioning may be more effective in getting specific legislation, like Age 21, enacted by all states. However, to avoid sanction, states may do the minimum in drafting and enforcing legislation. For example, Age 21 was popular, known to be effective, and already enacted in many states before federal sanctions were threatened. The sanctions caused the remaining states to pass Age 21 laws. Today, many state laws contain loopholes and are not enforced vigorously. The Surgeon General has issued several reports documenting these problems.

The states have an obvious distaste for sanctions. The Drug Offender's Driver's License Suspension Act will sanction states unless they either enact certain laws or pass a formal resolution of opposition. As of June 18, 1993, 20 states have adopted resolutions of opposition while only five states and Puerto Rico have submitted laws that comply with the Act. Most state resolutions sympathized with the Act's goals but opposed federal intrusion into state legislative activity. As noted in the previous question, we believe incentives are more effective than sanctions.

STATES THAT FAIL TO QUALIFY FOR NHTSA INCENTIVE PROGRAMS

Senator Lautenberg. Mr. Brownlee your agency has worked with several States to help them come into compliance with the thresholds of the Section 408 program and Section 410 program. While an increasing number of States have passed the necessary drunk driving laws to become eligible for these programs, there are still a few States that have qualified for neither program. What can you tell us about the attitudes in those states that keep them from taking the necessary steps to beef up their drunk driving laws?

Answer. Every state is working to reduce impaired driving. Every state is aware of the problem and has taken steps to address it. Many States which have not qualified for Section 408 or Section 410 funding have been unable to pass the required legislation despite concerted efforts. Other states prefer to address their impaired driving problem with laws and countermeasure that differ from those specified in the grant criteria.

Senator Lautenberg. Have these States pursued alternative methods to minimize drunk driving that have been equally or more effective than those required under Section 408 and 410 programs?

Answer. Many, not all, of these states have pursued alternative methods to minimize drunk driving. We do not know if these methods are more successful because in most cases there has been no scientific evaluation of the alternatives.

Senator Lautenberg. Mr. Brownlee, Mrs Kirk in her testimony points out that the direct cost to society of drunk driving accidents equals roughly $46 billion each year. A significant percentage of the health care costs associated with drunk driving accidents are borne by the taxpayer. Has NHTSA, in its discussions with the Health Care Reform Task Force, considered including drunk driving prevention as part of President Clinton's health care reform package? If so, what types of drunk driving prevention measures are under consideration for the health care reform package?

Answer. The Department of Transportation is not formally involved with the Health Care Reform Task Force, although we believe that members of the task force are aware of the significant contribution injuries make to the nation's overall health care cost. NHTSA estimates that the medical costs resulting from drunk driving are more than $5 billion per year. Reducing these costs would make a noticeable contribution to the overall reduction in health care costs in this country. This reduction would also make a noticeable dent in the budget deficit, based on the agency's estimate that each year almost $1.5 billion in health care costs resulting from drunk driving are paid by U.S. taxpayers.

POLICE ENFORCEMENT/EASE OF PURCHASE OF ALCOHOL BY MINORS

Senator Lautenberg. Mr. Brownlee, you noted in your opening statement that you work directly with police organizations to minimize the frequency of drunk driving. What can you report to us regarding police efforts to minimize the illegal sale of alcohol to minors?

Answer. We have identified numerous efforts by police throughout the country to minimize sale of alcohol to minors. We know that "sting operations", in which police use underage 'decoys' to attempt purchase, have been very successful and relatively cheap to employ. Generally, effective sting operations can reduce successful buy attempts from the 60 to 70 percent level to the 20 to 30 percent level as found in Denver, Albuquerque, and the state of Michigan. "Cops in Shops" or "Badges in Business" are successful programs that use police officers as clerks in retail outlets in Delaware, Nebraska, New Mexico and other states. Other jurisdictions set up special patrols to contain teenage drinking parties, like the "Party Poopers" in Chesapeake, Virginia or the BRATT patrol in Clackamas County, Oregon.

NHTSA seeks to encourage much wider use of these effective techniques. A four-state study now underway at NHTSA has found that, although arrests of young people for possession of alcohol are low, enforcement action against retailers who sell to minors are much lower still. For every 1,000 possession arrests there are about 130 arrests for alcohol sale. So, while there are many examples of effective enforcement programs throughout the country, enforcement is not what it should be.

Senator Lautenberg. You have seen the Insurance Institute data pointing out how easy it is for minors to purchase alcohol in several major cities. What progress, if any, has NHTSA observed in this area?

Answer. Although it is still far too easy for a young person to purchase alcohol in many regions of the country, we are beginning to see momentum shifting. New zero tolerance laws are being enacted (now in 10 states including DC). Teenage alcohol consumption is down, according to the National Institute of Drug Abuse "High School Senior Survey." Teenage alcohol-related fatalities are at an all time low according to 1992 data. These are positive indicators that programs to reduce purchase, sale and consumption by teens are having an effect.

Although we believe enforcement is far less than what it should be, the police community is very interested in new enforcement training developed by NHTSA to address this issue. Three states (Ohio, Louisiana and florida) will complete this training in the summer. Eight others will follow during the year.

EFFECTIVENESS OF INCENTIVE GRANTS VS. HIGHWAY SANCTIONS

Senator Lautenberg. Using the threat of sanctioning federal highway funds, we were successful in prompting all 50 states to raise the drinking age to 21. While we have safety grant programs to prompt the states to pass tougher laws to control drunk driving, some states have taken very tough action while other states have done very little. Would you agree that sanctioning the states is a more effective tool in getting the states to act in this area?

Answer. As we stated in response to earlier questions, incentive grants serve to encourage states to improve their drunk driving laws and programs in order to qualify for additional grant funds. In this era of very stringent state budgets, most states are seeking these additional funds and improving their programs as they attempt to qualify for these funds. Those states that do qualify use the additional funding for their most pressing drunk driving program needs. This is beneficial for both the states and the Federal government.

While the threat of sanctions helped to get state age 21 laws enacted, the same circumstances do not hold true with the present legislation that we are encouraging states to adopt. Under the present circumstances (i.e., tight state budgets), we believe that incentives will be more effective than sanctions in getting these laws passed by the states.

Senator Lautenberg. Have you observed that those states that have been the most successful at qualifying for the Federal incentive grants also have demonstrated the greatest success in lowering drunk driving fatalities?

Answer. Yes. For the nation as a whole, the proportion of traffic fatalities that were alcohol-related decreased 16 percent between 1982 and 1991. Of the 19 states that have qualified for Section 410 Alcohol Incentive Grants, 13 states had decreases in alcohol involvement that exceed the national average during that time period. Seven states had substantial decreases in alcohol involvement of 20 percent or greater. All but one of the 19 states showed decreases in this measure. Of the remaining 32 states that have not qualified for Section 410 grants, 6 states have actually experienced increases in alcohol involvement in fatal crashes from 1982 to 1991 and many states had decreases that were less than the national average.

These are preliminary indicators that states with alcohol programs as advocated in the 410 grants are experiencing remarkable decreases in drunk driving. Over the next two years NHTSA will conduct more extensive evaluations of the effects of Section 410 incentive grants.

Senator Lautenberg. New Mexico was the first state to qualify for the new Section 410 program but their drunk driving fatality rate continues to be far in excess of the national average. What does this tell us about the success of the federal incentive programs in rewarding progress by the states in controlling drunk driving?

Answer. New Mexico was awarded its first Section 410 grant in August of 1991 and its second about one year later. By the end of 1992, the State, through the Attorney General's DWI Prevention Task Force, had prepared a comprehensive "Action Plan for New Mexicans to Prevent DWI." Then, the State worked aggressively to begin implementing its plan. Early in 1993, key legislation was passed, including a per se law setting .02 BAC as the level at which persons under the age of 21 are deemed to be driving while intoxicated (DWI) and a per se law lowering to .08 BAC the level at which other drivers are deemed to be DWI. It is too early to truly assess the effects of this program on the State's fatality rate, but the Section 410 funding played a key role in pushing a significant DWI prevention agenda.

QUESTIONS SUBMITTED BY SENATOR SASSER

COMMERCIAL DRIVERS WITH FALSE LICENSES

Senator Sasser. There was a recent incident involving a commercial vehicle operator who was responsible for a fatal traffic accident. The accident received added focus because the truck driver was operating with a false license, his license having earlier been revoked due to an alcohol offense. Does NHTSA have information regarding the prevalence of such loopholes in the commercial driver licensing process? Also, how many of last year's nearly 40,000 traffic fatalities involved impaired commercial vehicle drivers?

Answer. The incident in question involved a driver whose Commercial Driver License (CDL) had been revoked due to numerous alcohol-related convictions. He apparently then used his brother's identification to get a new CDL. NHTSA is aware of other cases where individuals used the identification of deceased persons to obtain a driver license. However, based on discussions with state driver license agencies, NHTSA believes that using a relative's identification to obtain a driver license is a rare event.

NHTSA's Fatal Accident Reporting System (FARS) reports that 4,417 persons died in crashes in 1992 involving large trucks (10,000 lbs. gvwr or greater) and buses, and 125 of these deaths (or three percent) occurred when a truck or bus driver had been drinking.

Senator Sasser. Despite extensive data regarding the consequences of failing to "buckle up" or wear helmets, many motorists, especially motorcyclists, insist it is their right to choose whether or not to wear a helmet. Does NHTSA have any recent data regarding the economic impact caused by motorcyclists involved in traffic accidents? Also, to what extent have such accidents involved an impaired operator?

Answer. Preliminary data for 1992 shows that 2,370 died as a result of a motorcycle crash, down from 2,808 in 1991. Although this is significant progress, the cost to society of these deaths is estimated to be at least $1.7 billion. This is based upon an estimated societal cost of an average motor vehicle fatality of $702,000 and $797,000 for an alcohol related fatality. (A detailed analysis of the costs to society associated with motor vehicle crashes was published in "The Economic Cost of Motor Vehicle Crashes, 1990", DOT HS 807-876, September 1992.) Motorcycle crashes frequently involved impaired riders. In 1991, 38.6 percent of motorcycle riders involved in fatal crashes had blood alcohol concentrations of 0.10 g/dl or greater. (1991 Alcohol Fatal Crash Facts, National Center for Statistics and Analysis, NHTSA). The $1.7 billion estimate assumes the percentage in 1992 was the same as in 1991.

The most recent data on injured survivors of motorcycle crashes shows that in 1991, 50,000 people received minor or moderate injuries and 21,000 received severe injuries. ("General Estimates System 1991"). The societal costs associated with these injuries would have been at least $900 million, based on an average cost to society of a motor vehicle crash related injury of about $12,800.

Thus the best current estimate of the total societal cost of motorcycle injuries and fatalities is at least $2.6 billion a year.

PSA EFFECTIVENESS

Senator Sasser. Public education campaigns such as "Friends Don't Let Friends Drive Drunk" and "Think Before You Drink" are important tools in the battle against drunk driving. Data regarding DUI convictions provide a measurable gauge against which enforcement strategies can be developed and modified if need be. How does NHTSA gauge the effectiveness of PSAs?

Answer. The effectiveness of PSAs is gauged by measures of exposure, audience recognition, and message retention. Since it is usually not possible to directly tie public service campaigns to crash results, measures of exposure and knowledge gain are used. PSA exposures can be measured by numbers and types of placement and airing. By looking at exposures and numbers of viewer impressions, donated dollar values can be estimated. Surveys and marketing research can often identify audience recognition and retention of PSA messages, thereby confirming that PSAs are being seen or heard and retained. We believe that the cumulative effect of repeated exposures to PSAs and other sources of information and messages is greater knowledge and awareness of impaired driving issues and desired behaviors.

SAFETY BELT STRATEGIES IN OTHER COUNTRIES

Senator Sasser. The Secretary's goals for highway safety include reducing fatalities to 43% by 1997 and increasing seat belt usage to 75% in that same timeframe. Briefly describe for the RECORD the strategies used in other countries to meet or exceed the Secretary's goals for the United States.

Answer. Canada has been very successful in increasing national seat belt usage. Canada accomplished this through the use of blitz-like Selective Traffic Enforcement Programs (STEPs) which synchronize the conduct of enforcement, media, press events and usage surveys over a Province-size area. Following a determination of pre-program seat belt use, a media-based, public information program is conducted over several weeks about belt use benefits. Then local police agencies hold one or more press conferences to warn the public that belt use law enforcement is to be emphasized over the next several weeks. Following that blitz-like enforcement period, belt use is again measured and a press conference held to announce the use increase achieved. This cycle of activity is repeated periodically. Each time, the belt use rate rises to a higher level with the result that national usage is currently in the 80 percent range, with several Provinces exceeding 90 percent use.

Several countries have achieved lower alcohol involvement rates in fatal crashes than the U.S. Norway and Sweden have the lowest alcohol involvement rates. Their success has been attributed to a combination of tougher laws, consistent visible enforcement, and a high social unacceptability of drinking and driving. Norway and Sweden lowered their illegal BAC limits and conducted sobriety checkpoints routinely over the past several years which resulted in even lower alcohol involvement in their crashes. The United Kingdom experienced similar reductions when they passed landmark drinking and driving legislation and followed it up with enforcement "blitzes". In Australia, remarkable reductions in alcohol-related and total traffic fatalities occurred when they introduced "random breath testing", a strict form of sobriety checkpoint, into their enforcement strategy.

We believe the U.S. can reduce its alcohol involvement rates in the next few years if more states pass and enforce key laws (administrative license revocation, .08 BAC, zero tolerance for drivers under 21) and if public information and education programs are continued and directed at high risk groups.

UNIFORMITY OF ALCOHOL LAWS AND ENFORCEMENT

Senator Sasser. Tough anti-drunk driving laws must work in concert with enforcement to be most effective. Despite increased action in state legislatures, there is still a variance among the States' laws and enforcement strategies.

What recommendations can NHTSA provide on obtaining greater uniformity among the states, as well as a higher priority on state and local budgets?

Answer. We believe that states need flexibility to combat impaired driving problems. The basic concept remains the same for all states--do not drink and drive. If you do you will be caught and subsequently punished. At the next level we emphasize the implementation of specific sanctions such as swift and sure license suspension or revocation. To assist states at this level, NHTSA will continue to provide model laws and samples of successful program strategies. We have attempted to make our training for police, judges, and prosecutors as uniform as possible, while taking into account variations in state laws.

To assist states in allocating adequate budgets for impaired driving we have demonstrated how funds spent on impaired driving save many more dollars in health care costs. We have surveyed how the states fund impaired driving programs through user fees -- fines, fees, taxes, and surcharges -- and are sharing this information with all the states.

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

CENTER RELEASE SAFETY BELT BUCKLES

Senator Mikulski. Mr. Administrator, some of my constituents believe that center-release safety belt buckles are a serious hazard. You may be aware of CBS News' program "Street Stories", which on September 10, 1992 and November 19, 1992 reported the failure of center-release buckles.

In Maryland, I know of at least one young person who lost her life in a multiple-impact collision who was known by her parents to use seat belts diligently. Her parents believe that the failure of the center-release buckle in her car (a 1991 Oldsmobile Cutlass Calais) was directly responsible for her death. These buckles are found not only in cars made by General Motors, but also in many other makes of car. What is NHTSA doing to respond to the reports on CBS' program and other reports you have heard concerning center-release buckles? Has NHTSA compared the safety of these buckles with the European (end-release) design buckle?

Answer. On September 10, 1992, the CBS news program "Street Stories" broadcast a story concerning allegations of inertial unlatching of safety belt buckles. The following day, the Institute for Injury Reduction (IIR) petitioned the National Highway Traffic Safety Administration (NHTSA) to conduct a safety defect investigation leading to a recall of safety belt buckles that become unlatched due to inertial unlatching. IIR alleged that crash forces applied to the buckle can actuate the release button, allowing the belt to become unlatched. Due to the serious nature of the allegation that safety belts could fail in use, NHTSA conducted a comprehensive evaluation of data concerning the performance of safety belt buckles to evaluate the merits of this petition. A detailed review was conducted of every crash test conducted by the agency over the past 24 years to determine if inertial unlatching occurred in any of the thousands of tests. Laboratory tests were performed to define the characteristics that cause inertial unlatching and to determine if these exist in the real-world crash environment. Information was requested from eight motor vehicle manufacturers and five safety belt manufacturers, as well as holders of patents on safety belt buckles, to search for information concerning the alleged defect. Real-world accident data were analyzed to determine if there is any difference in the occupant protection provided by safety belts with center release buckles compared to belts with end release buckles. All information provided to NHTSA's Auto Safety Hotline was reviewed, both before and after receipt of the petition, to determine if any patterns exist among consumer complaints to suggest a possible defect with side release buckles. Information was obtained from other countries concerning the alleged defect.

The results of NHTSA's analysis of these data were presented at a press conference on November 18, 1992, and all of the details of the analysis was made available to the public at that time. In summary, the agency's analysis showed no evidence of inertial unlatching in 2,300 NHTSA crash tests involving 4,000 belted dummies. These tests included frontal, side, rear, and rollover crashes. Laboratory tests concerning the inertial unlatching phenomenon demonstrate that the physical characteristics present in laboratory tests which result in inertial unlatching are not present in real-world vehicle crashes. The manufacturers' data did not demonstrate a safety problem related to inertial unlatching. Patent holders indicated that changes to buckle designs were sought for improvement of general performance and ease of operation--not because of a safety problem with inertial unlatching. Analysis of real-world data demonstrated that there is no pattern to suggest a problem with center release buckles compared with end release buckles. A review of calls to the Auto Safety Hotline reveals that the complaint rate is about the same for center release buckles compared to end release buckles, and the complaint rate for both buckle designs is extremely low compared to other safety problems reported to the agency. The responses from foreign countries concerning inertial unlatching indicated no evidence of a real-world problem concerning inertial unlatching. Based on all of the above which indicated inertial unlatching is not a safety problem for center release belts, the IIR petition was denied on November 18, 1992.

NHTSA is aware of the tragic accident last year in Maryland involving a 1991 Oldsmobile Calais that resulted in the loss of the driver's life. A special accident investigation was conducted by a trained accident investigator, and a report was provided to NHTSA on this accident. The investigator concluded that, based on an inspection of the vehicle and its safety belt system, and the medical reports concerning the deceased, the safety belt was not worn at the time of the accident.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

COSTS OF AUTO ACCIDENTS

Senator D'Amato. Automobile accidents are the number-one transportation safety problem in the United States. The societal costs of fatal and non-fatal auto accidents to our public health care system and to our economy in general are enormous. Has NHTSA performed any detailed analysis of the estimated costs of fatal and non-fatal auto accidents to our public health care system and to our economy in general?

Answer: In September 1992, NHTSA published a comprehensive analysis of the costs to society of motor vehicle crashes. ("The Economic Cost of Motor Vehicle Crashes, 1990, DOT HS 807 876). The principal results of that analysis show that the annual cost to society of motor vehicle crashes was $137.5 billion. Of that total, fatal motor vehicle injuries cost society an estimated $31.3 billion, injured survivors cost society $68.9 billion, un-injured persons involved in crashes cost society $1.7 billion, and property damage crashes cost society $35.6 billion. The overall health care cost of these injuries was estimated to have been $14.2 billion, including the spectrum from emergency medical service pickup, through emergency department, hospital admission and long term rehabilitation. Of this $14.2 billion, an analysis of the costs paid by the taxpayer shown that Federal taxpayers paid $2.6 billion and state taxpayers paid $1.1 billion in publicly financed health care. Taxpayers had to make up for a $5 billion loss in Federal tax receipts as a result of the loss of income by citizens who were killed or injured. In addition, the U.S. Treasury had to absorb a $1.4 billion increase in Federally funded public assistance.

And state taxpayers paid an additional $1 billion to cover tax revenue not forthcoming from an injured or killed person, and a $200 million increase in state funded public assistance.

Senator D'Amato. Has the White House health care task force involved NHTSA in its efforts to reform America's health care system with respect to the effects of auto accidents on the costs of the entire system?

Answer: The Department of Transportation has a role in achieving a new national health care system. Considerable savings in health care costs can be achieved by reducing the number of injuries and fatalities that result from motor vehicle crashes. In 1990, the health care costs associated with these injuries and fatalities were $14.2 billion. Although NHTSA is not directly involved with the Health Care Reform Task Force, the agency understands that the high costs of injuries are being considered.

Senator D'Amato. What contribution could NHTSA make to the effort to reduce the costs of our health care delivery system to the American taxpayer, and to improve that system?

Answer. In addition to continuing its efforts to improve the crashworthiness of vehicles and developing improved crash avoidance measures, NHTSA is focusing on three goals: decreasing alcohol related motor vehicle fatalities from 46 percent to 43 percent of the total, increasing safety belt usage from 62 to 75 percent, and reducing speed related fatalities by 5 percent. Attaining these goals will save society an estimated $5 billion a year, including $670 million a year in health care costs. The American taxpayer would save an estimated $195 million of the health care cost.

A three percentage point reduction in alcohol related fatalities and injuries would reduce fatalities by 1,200 and injuries by 65,000. This would save society an estimated $2.2 billion a year, including a $81 million reduction in taxpayer funded medical care a year.

Increasing safety belt usage to 75 percent is estimated to save 1,800 lives and 30,000 injuries. This would save society an estimated $2.8 billion a year, including a $124 million annual reduction in taxpayer funded medical care.

Reducing speed related fatalities by 5 percent would save an estimated 600 fatalities and would also reduce injuries by at least 15,600. The combination of these effects would save society an estimated $621 million overall, including $12 million reduction in publicly funded medical care each year.

The total savings of these three countermeasures is not the sum of the three individual values as there is some double counting involved. NHTSA estimates that this is on the order of ten percent of the total. The overall savings to society of achieving these goals is estimated to be $5 billion a year, with the savings in taxpayer funded medical care as a result of these three countermeasures estimated to be $195 million a year.

Further reductions in health care cost are possible if additional resources were available to allow emphasis to be added to other programs such as motorcycle safety and pedestrian and bicycle safety.

DRUNK DRIVING RECIDIVISM PROBLEM

Senator D'Amato. In New York State at least 20 percent of the drivers arrested for drinking and driving have had at least 1 prior conviction within the previous 9 years. Almost all of the drinking drivers who are sentenced to probation are recidivists - many also have chronic alcohol abuse problems (over 8,000 DWI offenders were sentenced to probation each year from 1987-1991). A New York State initiative regarding auto ignition interlock has been delayed pending the certification of an ignition interlock manufacturer by the NYS Dep't of Health. Obviously, we need to separate a drunk driver from operating a vehicle; however, is ignition interlock a practical approach? Is such a program in place in other states?

Answer. An alcohol ignition interlock may prove to be practical for helping to solve some of the DWI recidivism problem. It is practical to place such devices on cars of DWI offenders under court supervision. Twenty-three states (listed below) have passed laws permitting use of the device. NHTSA has assisted states by developing model specifications for alcohol ignition interlocks, and providing guidelines for implementing programs. However, it is difficult to conduct sufficiently controlled studies to determine effectiveness in reducing impaired driving events, and studies to date have not produced clear evidence of such effectiveness. It is evident that more research is needed. Among other things, it is necessary to determine how to identify individuals who should be assigned the device, the extent to which circumvention occurs, and how to strike a reasonable balance between driver's license suspension and installation of the device. NHTSA intends to continue to work with various states to conduct the necessary research.

States which have alcohol ignition interlock laws are as follows: Alaska, California, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Nebraska, New York, North Dakota, Ohio, Oregon, Rhode Island, Tennessee, Texas, Washington and West Virginia.

Senator D'Amato. Should States or the Federal Government pass laws to confiscate the vehicles of repeat offender drunk drivers? Do any States currently have such forfeiture laws?

Answer. More than 30 states have laws that allow the confiscation, impoundment, immobilization, or "marking" of vehicles owned or in some cases used by drivers with licenses suspended or revoked for DWI. However, most of these sanctions are imposed infrequently and their results have not been evaluated. NHTSA is completing an evaluation of vehicle "marking" with license plate stickers in Oregon and Washington and is negotiating with several locations to evaluate their vehicle immobilization and confiscation laws.

States should consider passing and enforcing laws to separate repeat offenders and individuals who drive with suspended or revoked licenses from their vehicles. States should consider the full range of options: "marking" the vehicles through special license plates or stickers, immobilization, impoundment, or confiscation.

Senator D'Amato. Would you support placing the proceeds from any such forfeitures into a Victims Relief Fund and/or into state Drunk Driving Education Programs?

Answer. NHTSA supports placing the proceeds from forfeitures either in a Victims Relief Fund, state Drunk Driving Education Programs, or other state drunk driving programs. Competition for funds at the state and local levels makes it difficult to provide funding necessary to initiate and sustain comprehensive impaired driving prevention efforts. Therefore, the establishment of dedicated funds provides a reliable source for sustained impaired driving programs.

DRUNK DRIVING

Senator D'Amato. Do you support a "zero tolerance" approach for underage (under age 21) drunk drivers? Should licenses be revoked/ suspended for any level of blood alcohol in underage drunk drivers?

Answer. We support a "zero tolerance" (or .02 BAC to accommodate breath testing instrument error) approach for underage drivers. Now that all states have Age 21 drinking laws, no one under that age should be drinking driving. We believe licenses should be revoked (for at least 3 months for a first time offender) for any driver under the age of 21 apprehended with any measurable amount of alcohol in his or her system. The agency's experience is that license suspension is a highly effective sanction for youth.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

"INVESTMENT" FUNDING FOR SECTION 410 PROGRAM

Senator Domenici. Mr. Brownlee, the President's FY 1994 budget request includes $3.71 billion in "investment" spending for the Department of Transportation as part of an overall package of $16.7 billion for discretionary programs. The National Highway Traffic Safety Administration is targeted for $32 million of these "investment" funds.

As I read the budget request, the full $25 million requested for the Section 410 alcohol-impaired driving countermeasures grants program falls in this "investment" category. This program is critical to the prevention of drunken driving, which is the primary focus of today's hearing. Yet, when Congress looks at the President's overall budget request, including the proposed "investment" spending, it is over the statutory cap on discretionary spending by $8.2 billion in budget authority and $6.9 billion in outlays for FY 1994. In other words, the Appropriations Committees in the House and the Senate will not be able to fund these priority programs unless it cuts $8.2 billion in spending from other programs.

It will be extremely difficult for the Congress to find reductions to accommodate all of the President's "investment" proposals. In the absence of the $25 million requested as "investment" spending, would there be any other funds in the budget request to support the Section 410 program?

Answer. Recognizing that traffic accidents have an extremely high economic cost to society ($137.5 billion per year) and an extremely high personal cost to the victims, reducing these costs will clearly have significant economic and personal benefits. This is an important reason why the Administration's investment program includes the proposals to increase funding above the budget baseline level. This funding will provide grants to States to support programs to reduce alcohol-related traffic accidents, increase the use of safety belts and motorcycle helmets, and promote traffic safety. NHTSA also has requested funding for cost-effective programs that are not categorized as investment programs to support ongoing highway safety activities. We are reluctant to suggest reducing funding for some worthwhile highway safety programs in order to provide funding for other worthwhile highway safety programs. Because the total NHTSA budget request represents such a very small portion of the overall Federal budget, perhaps it would be appropriate for the question of budget trade-offs to be considered in the broader context of the overall Federal budget.

Senator Domenici. Is this the same situation for the remaining $7 million in "investment" programs proposed for NHTSA, which I believe are the Section 402 formula grants and the Section 153 incentive grants?

Answer. The $7 million included as "investment" proposals for the Section 402 and Section 153 programs, unlike the Section 410 program, represents a portion of the total funds requested. In the case of Sections 402 and 153, the regular budget proposals provide funding at the budget baseline level, while the investment proposals ($7 million) are above the budget baseline level. The investment funding will be used for the same purposes as the regular funding. Section 402 formula grants will promote traffic safety by funding cost-effective State and local highway safety activities, while Section 153 grants will encourage increased use of safety belts and motorcycle helmets. Because of the highway safety benefits of these grant programs, we recommend providing both the regular and investment funding.

Senator Domenici. It is my impression that the Section 410 program is the cornerstone of NHTSA's alcohol safety effort. It is an ongoing program, even though it was modified as part of the 1991 Intermodal Surface Transportation Efficiency Act. Why is a critical, ongoing program classified as "investment" spending when other similar programs are included in the regular budget request?

Answer. In the case of NHTSA, the Administration's investment program includes the proposals to increase funding above the budget baseline level for grants to States to support programs that improve critical human capital priorities such as reducing alcohol-related traffic accidents. Section 410 provides grants to fund alcohol-impaired driving countermeasures, so this clearly represents an investment in human capital. However, even though Section 410 grants are an ongoing program, there was no funding assumed in the budget baseline for them as a result of a budget technicality related to the way funding was provided in the FY 1993 appropriations bill. In that appropriations bill, no new FY 1993 funding was provided for Section 410 because the Congress assumed that unused, prior year funding would carryover into FY 1993 and be sufficient to support the anticipated grant obligations. The use of carryover balances, instead of providing new funding, had the effect of eliminating Section 410 from the baseline budget assumptions, even though this is a continuing program.

Senator Domenici. How does the Section 410 program rank in overall priority for NHTSA programs?

Answer. The Section 410 program is an extremely important NHTSA Program. These incentive grants improve state impaired driving programs in two ways.

First, states must have good impaired driving programs to meet the Section 410 qualification criteria. Then, after they qualify, states receive grant funds to use on their most pressing impaired driving program areas. As more states pass legislation and introduce programs to qualify for the 410 grants, we expect to see a continuing decrease in alcohol-involved fatal crashes.

Senator Domenici. Would you provide for the record, your assessment of the demand for the Section 410 funding requested in the budget, including information on state participation? As I recall, my own State of New Mexico was the first state to qualify under the stricter criteria of the Section 410 program.

Answer. In August 1991, New Mexico became the first state to qualify for Section 410 incentive grant funds. Indiana followed in November 1991. Then, with the passage of ISTEA in December 1991, the Section 410 criteria were significantly amended for new States wishing to qualify.

Nineteen States are currently qualified for Section 410 funding under the revised regulations developed to implement ISTEA; this includes New Mexico and Indiana which qualified under the "old 410" criteria.

Attached is a table giving actual values for FY 1992 Section 410 awards and estimates for FY 1993 and FY 1994. The table shows nine new States qualifying in FY 1993, based on our estimates of pending legislative and programmatic activity; it is likely that fewer States will actually qualify in FY 1993.

If these estimated States do qualify in FY 1993 and FY 1994, available funding will be insufficient to give every State its maximum allowable grant. Therefore, given the obligation limit we have for FY 1993, we have estimated that we can fund the States at 57 percent (Contingency column) of their formula calculation. At the end of the year, we will proportionately redistribute any remaining balance.

[The table follows:]

	ACTUAL	1992		EST.	1993			EST.	1994		
STATE		MAX GRANT			MAX GRNT CONTING.				MAX GRNT CONTING.		
	BASIC	SUPPLEMEN	TOTAL	BASIC	SUPPLEMEN	TOTAL	57%	BASIC	SUPPLM	TOTAL	70%
AK	$0	$0	$0	$206,516	$68,838	$275,354	$156,952	$206,516	$68,838	$275,354	$192,748
AZ	$213,780	$32,890	$246,670	$568,600	$189,531	$758,134	$432,136	$568,600	$189,531	$758,131	$530,691
CA	$1,490,939	$344,049	$1,834,988	$3,965,520	$2,643,680	$6,609,200	$3,767,244	$3,965,520	$2,643,680	$6,609,200	$4,626,440
CO	$222,544	$0	$222,544	$591,911	$295,956	$887,867	$506,084	$591,911	$295,956	$887,867	$621,507
DE	$77,645	$11,946	$89,591	$206,516	$68,838	$275,354	$156,952	$206,516	$68,838	$275,354	$192,748
DC	$77,645	$11,946	$89,591	$206,516	$172,095	$378,611	$215,808	$206,516	$172,095	$378,611	$265,028
HI	$77,645	$11,946	$89,591	$206,516	$103,257	$309,773	$176,571	$206,516	$103,257	$309,773	$216,841
IL	$642,729	$148,323	$791,052	$1,709,493	$854,748	$2,564,241	$1,461,617	$1,709,493	$854,748	$2,564,241	$1,794,969
IN	$895,963	$597,308	$1,493,271	$895,963	$597,308	$1,493,271	$851,164	$895,963	$597,308	$1,493,271	$1,045,290
IA	$0	$0	$0	$0	$0	[illegible]	$0	$617,969	$411,980	$1,029,949	$720,961
KS	$0	$0	$0	$635,919	$423,944	$1,059,863	$604,122	$635,919	$1,059,863	$1,695,782	$1,187,017
ME	$0	$0	$0	$206,516	$137,676	$344,192	$196,189	$206,516	$137,676	$344,192	$240,931
MN	$0	$0	$0	$851,521	$425,760	$1,277,281	$728,050	$851,521	$425,760	$1,277,281	$894,097
MO	$0	$0	$0	$917,384	$152,897	$1,070,281	$610,060	$917,384	$152,897	$1,070,281	$749,197
MT	$104,239	$0	$104,239	$277,247	$92,416	$369,663	$210,708	$277,247	$92,416	$369,663	$258,761
NE	$0	$0	$0	$423,743	$211,872	$635,615	$362,101	$423,743	$211,872	$635,615	$444,931
NM	$193,114	$434,507	$627,621	$193,114	$434,507	$627,621	$627,621	$320,376	$160,188	$480,564	$336,395
NV	$97,508	$15,002	$112,510	$259,348	$172,900	$432,248	$246,381	$259,348	$172,900	$432,248	$302,574
NJ	$379,380	$0	$379,380	$1,009,052	$168,175	$1,177,227	$671,019	$1,009,052	$168,175	$1,177,227	$824,059
NY	$913,145	$0	$913,145	$2,428,730	$0	$2,428,730	$1,384,376	$2,428,730	$0	$2,428,730	$1,700,111
NC	$0	$0	$0	$1,031,770	$687,848	$1,719,618	$980,182	$1,031,770	$687,848	$1,719,618	$1,203,733
ND	$0	$0	$0	$296,705	$98,902	$395,607	$225,496	$296,705	$98,902	$395,607	$276,925
OH	$595,161	$45,782	$640,943	$1,582,973	$527,658	$2,110,631	$1,203,060	$1,582,973	$527,658	$2,110,631	$1,477,442
OR	$0	$0	$0	$580,995	$484,165	$1,065,160	$607,141	$580,995	$484,165	$1,065,160	$745,612
PA	$644,327	$0	$644,327	$1,713,742	$856,872	$2,570,614	$1,465,250	$1,713,742	$856,872	$2,570,614	$1,799,430
UT	$118,682	$36,516	$155,198	$315,662	$210,440	$526,102	$299,878	$315,662	$210,440	$526,102	$368,271
VA	$342,269	$26,328	$368,597	$910,346	$151,724	$1,062,070	$605,380	$910,346	$151,724	$1,062,070	$743,449
WV	$113,559	$8,735	$122,294	$302,037	$100,678	$402,715	$229,548	$302,037	$100,678	$402,715	$281,901
WI	$324,606	$74,910	$399,516	$863,369	$431,685	$1,295,054	$738,181	$863,369	$431,685	$1,295,054	$906,539
TOTAL			$9,325,068			$34,122,097	$19,719,472			$35,640,908	$24,948,636
APPROP.			$25,000,000				$19,748,180			*(94 request)*	$25,000,000

FUNDING THE DWI FIGHT

Senator Domenici. I know that the efforts we are now taking to reverse the death toll on our highways is underfunded. My understanding is that last year the Drunk Driving Prevention Incentive Grant Program received only $20 million of the $25 million authorized. I plan to work hard this year to see that the Section 410 program is fully funded. I have also introduced S.604 which amends the 1986 Omnibus Crime Control and Safe Streets Act by adding a twenty-second category of initiatives toward which states may apply formula grant money, and allows states to fund programs for the prosecution of driving-while-intoxicated charges and for the enforcement of laws relating to alcohol use and the operation of motor vehicles. What is the return on investment for every dollar spent on DWI prevention in terms of money saved in costs to the American taxpayer and the national economy in general?

Answer: In FY 1992, NHTSA spent $63.6 million on alcohol safety programs, including grant funds provided to the states as well as contract funds expended by the agency. NHTSA's goal is a reduction of 1,200 fatalities a year. If the DWI prevention programs indeed save 1,200 lives and 65,000 injuries a year, the national economy in general would save more than $2.2

billion, for an overall return of over $34 for each dollar invested. Considering only the taxpayer benefits, there would be a $252 million saving, resulting in a return of $4 for each dollar invested. Of the $252 million savings, $73 million would come from reduced taxpayer funded medical care at the Federal and state levels plus an additional $179 million in a combination of increased tax revenue and reductions in public assistance that would otherwise be needed for the injured and their families.

.08 BLOOD ALCOHOL STANDARD FOR DWI

Senator Domenici. What do you think would be the impact on DWI in this country if all 50 states adopted this standard?

Answer. Although evidence from the states on the effects of lowering the BAC standard is limited, studies have shown that crashes increase as BAC increases. The effect is marked at BACs above the .08 level.

Lowering the standard to .08 in all 50 states would send a strong message to the American public that alcohol-impaired driving is not tolerated. It will increase the public's perception that impaired drivers will be detected, arrested, and punished.

Senator Domenici. Does NHTSA endorse the .08 standard?

Answer. Yes. Our report "Driving Under the Influence: A Report to Congress on Alcohol Limits," October 1992, recommends that "States should be encouraged to enact 0.08 as the BAC level at and above which it is a per se criminal offense to drive."

Senator Domenici. Should the federal grant initiative for drunk driving prevention, referred to as the Section 410 program, which now requires states to meet some, but not all, established criteria to gain additional incentive money, be tightened so that all criteria must be met in order to get funds-- including the designation of .08 as the presumptive level of intoxication?

Answer. The Section 410 program criteria should not be tightened to require States to meet all criteria for basic grants. The flexible nature of the "new" Section 410 program, allowing States to qualify for incentive funds by meeting most but not all criteria, recognizes that different States have taken different approaches to address impaired driving problems. Thus, many new States have become eligible for alcohol incentive grants; several of these are States that could not meet all four of the required Section 408 basic criteria. These are States with very good laws and programs aimed at preventing impaired driving; they deserve the extra incentive grant funds even though they may be missing one type of countermeasure.

Furthermore, the current requirement that allows States to qualify with a .10 BAC per se law for the first three years of Section 410 grants, then requires a .08 BAC per se law for the last two years of grant eligibility, is stringent enough. The State legislative process can be slow, requiring several years for a new program or idea to gather enough support. Since .08 BAC is a relatively new standard, the States need several years to understand its impact and push through legislation. However, even with the current criteria, we are already seeing lots of legislative activity on this issue; five States passed .08 per se laws in 1993.

Senator Domenici. Should the standard be tightened even further, and, if so, under what conditions?

Answer. All states should set a standard of .02 or lower (zero tolerance) for all drivers under the age of 21. The standard for commercial drivers should continue to be "no alcohol" (with substantial penalties for exceeding .04).

CONCLUSION OF HEARINGS

Senator LAUTENBERG. That concludes the hearings. The subcommittee will recess and reconvene at the call of the Chair.

[Whereupon, at 12:05 p.m., Thursday, May 27, the hearings were concluded and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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